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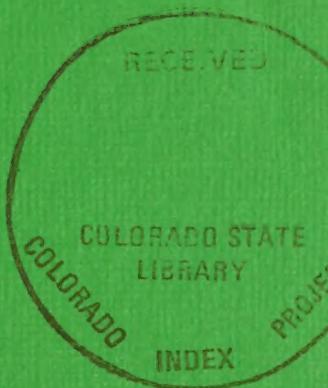
# ADP MASTER PLAN

Volume II

January, 1980

## 1980-81 BUDGET ANALYSIS

RECEIVED



**Richard D. Lamm, Governor**

**Lee White, Executive Director**

**Department of Administration**



# STATE OF COLORADO

**DEPARTMENT OF ADMINISTRATION**  
1525 Sherman Street, 7th Floor  
Denver, Colorado 80203  
Phone (303) 839-3221



Richard D. Lamm  
Governor

Lee White  
Executive Director

The Honorable Richard D. Lamm  
Governor, State of Colorado  
State Capitol Building  
Denver, Colorado 80203

Dear Governor Lamm:

Attached please find a copy of the 1980 Automated Data Processing (ADP) Master Plan for the State of Colorado.

The 1980 ADP Master Plan was prepared by the Division of ADP in accordance with CRS 24-30-613. It continues the managed growth approach to ADP which was started in 1977. This approach to managed growth includes consolidation of several computer centers, improved data processing services to user agencies, and simultaneous achievement of efficiencies of operation.

The 1980 ADP Master Plan is published in three volumes. Volume I summarizes the overall status of ADP in Colorado and recommends implementation steps for fiscal year 1980-81. Volume II contains the 1980-81 fiscal year budget analysis. Volume III is a report prepared by the Division of ADP and Department of Revenue staff, which outlines steps to improve data processing in the Department of Revenue.

I ask your endorsement of the 1980 ADP Master Plan and request your permission to continue implementation of the action steps specified.

Sincerely,

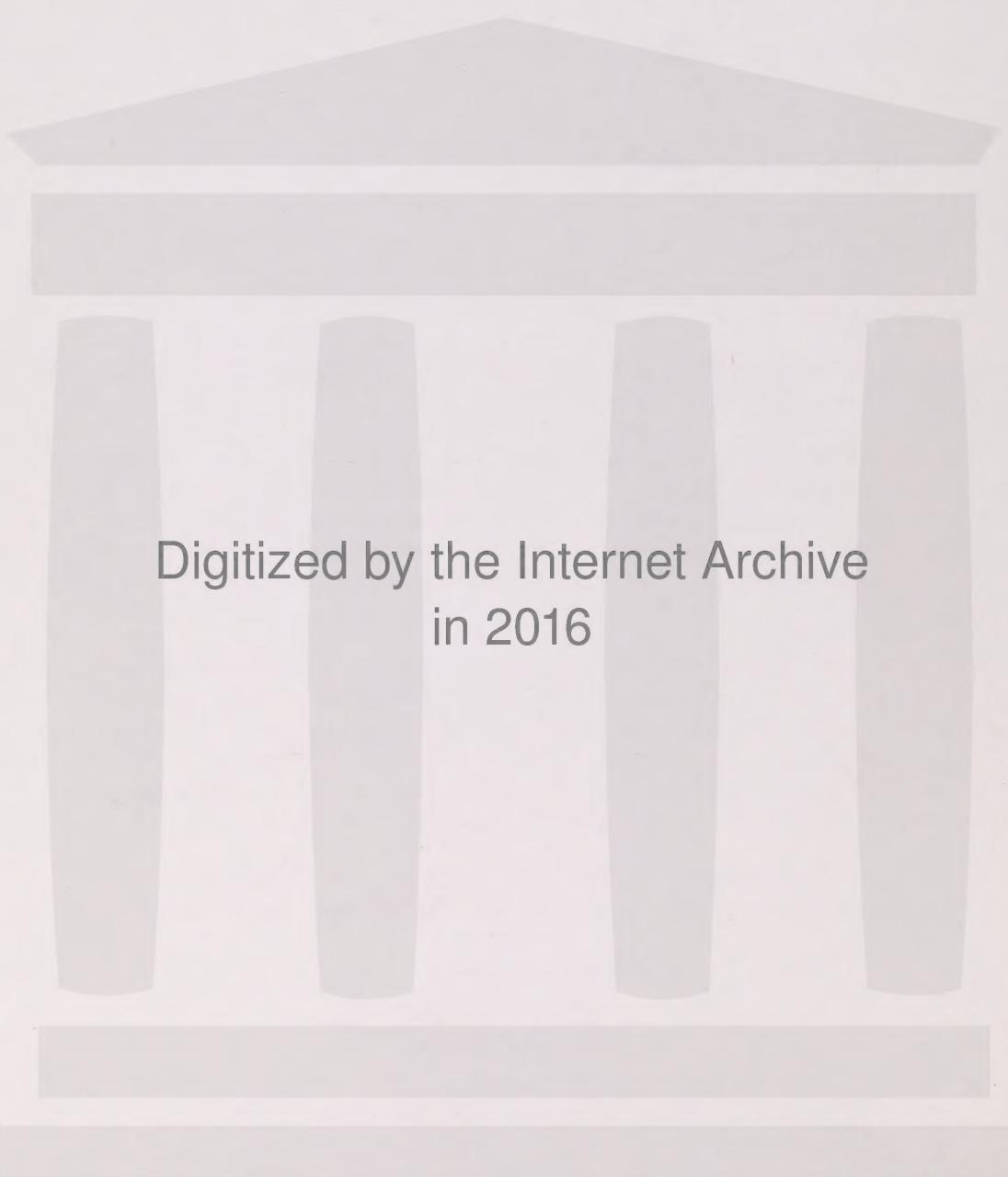
Lee White  
Executive Director

LW/jv  
Attachments

Governor's Approval

Richard D. Lamm, Governor

Date 1-16-80



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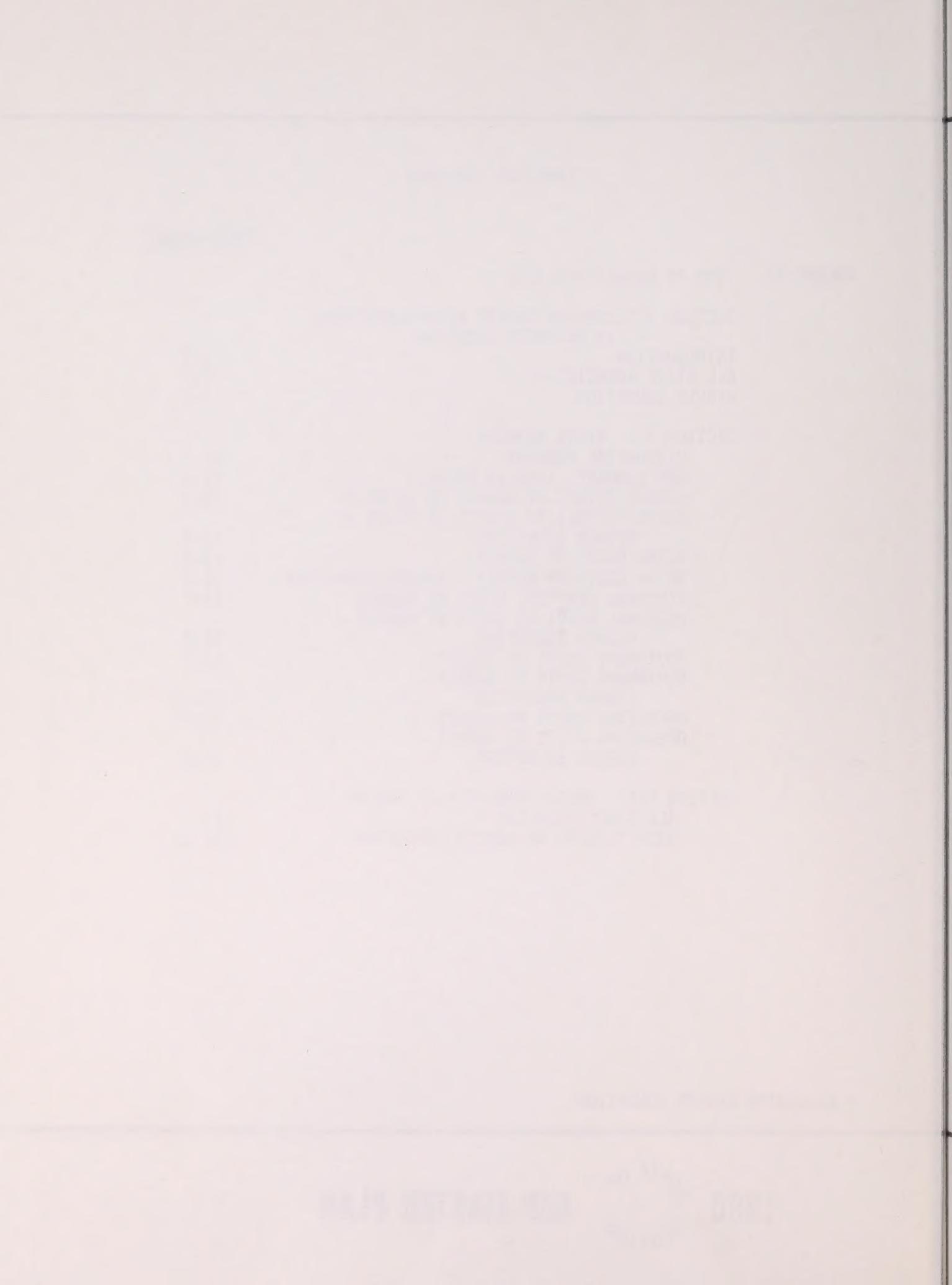
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\* EXCLUDING HIGHER EDUCATION

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## 1980-81 BUDGET RECOMMENDATIONS IN PRIORITY SEQUENCE

## A. INTRODUCTION

In arriving at the budget recommendations for Fiscal Year 1980-81 the Division of Automated Data Processing reviewed the budget requests of all the State agencies and institutions and determined the resources required to maintain the existing levels of support and meet the increased costs due to inflation and increases in workload.

In addition to these on-going requirements the Division of ADP has identified certain new items, which have been prioritized below. These are necessary to continue the progress previously made in the implementation of the State's ADP Master Plan, and to improve data processing services. In some cases offsetting savings are shown which can be realized immediately.

These priorities have been established in two lists, one for all agencies other than Higher Education and another for Higher Education. This has proven to be more effective than a single list because the two groups are usually considered separately and independently by the Legislative and Joint Budget Committee analysts. For detailed information on the items prioritized, as well as for general information on the various State agencies' budgets, you are directed to the individual budget documents and budget analysis sheets for each agency. (See Section III)

B. PRIORITIES - ALL AGENCIES EXCEPT HIGHER EDUCATION

General COST Fund Cash

PRIORITY = 1;

- Upgrade Department of Revenue's present computer to a new computer. \$ 420,000
- Create three data entry positions in the Department of Revenue to support cash management. \$ 28,320
- Provide additional terminal equipment to the Department of Personnel in support of their continued development of on-line systems and a reduction in batch processing.

	<u>COST</u>	
	General Fund	Cash
Additional Equipment Cost	\$ 2,370	
Reduction in batch operating costs	<u>(20,036)</u>	
Net Reduction	\$ (17,666)	
• Provide 1.0 FTE Programmer to the Department of State for maintenance support, systems revisions, and new development in the Uniform Commercial Code and Notaries Public systems recently acquired.	\$ 25,611	
• The Department of Treasury requests additional disk storage to allow transfer of applications to local computer.	\$ 9,418	
 PRIORITY - 2:		
• General Government Computer Center increase computer memory and disk storage to support consolidation and normal growth.	\$ 100,000	
• Selling the Univac 418III Computers allowed the CBI to purchase outright 2 tape drives, 2 disk units and 13 additional terminals. New maintenance dollars are needed for the continued maintenance of this purchased equipment.	\$ 23,971	
• Additional CBI disk storage is needed to support Property Tax Planning for their related data file. Dollars are needed for the lease and maintenance of this equipment.	\$ 68,600	
• The Judicial Department has need of strengthening its capability to develop and implement progressive court-oriented data processing support. The continued funding of 6 additional permanent FTE		

		<u>General Fund</u>	<u>COST</u>	<u>Cash</u>
staff (funded for conversion to GGCC in FY 1979-80) is reasonable and recommended for this capability. Without this capability, minimal maintenance and no growth can be expected.			\$ 119,640	
<b>PRIORITY - 3:</b>				
Two programmers are needed in order to provide programming support for current and new Correctional applications. Three of these positions were lost during last years appropriation efforts leaving Corrections with no application programmers.			\$ 40,149	
An additional CBI computer operator is requested to support the operational efforts associated with Property Tax and Planning.			\$ 19,119	
Increase the data processing staff at the Department of Natural Resources by 1.0 FTE Programmer and 1.0 FTE Systems Analyst for the development and implementation of an Energy Management Data System in support of the Department of Energy grant.			\$ 9,790	\$ 29,373
<b>PRIORITY - 4:</b>				
One Software Programmer to assist the Department of Revenue in bringing their computer operations to the State of the Art.			\$ 18,215	
Department of Education needs one programmer to support the additional school finance effort.			\$ 18,216	

		<u>COST</u>	<u>General Fund</u>	<u>Cash</u>
• The CBI data communication network that allows the terminals to operate is totally overloaded. In order to eliminate this problem it is necessary to expand the CBI network with additional circuits.		\$ 33,000		
• The Department of Regulatory Agencies requests Six (6) CRT terminals to be installed to support the Uniform Licensing System. Terminals to be installed January, 1980.		\$ 2,276		
• Division of Labor has the need for an intelligent terminal to communicate with the General Government Computer Center.		\$ 7,752		
<b>PRIORITY - 5:</b>				
• Create five data entry positions in the General Government Computer Center to help reduce the need for outside data entry overload contracts.		\$	\$ 57,700	
• Data entry equipment to support five entry positions requested in the General Government Computer Center.		\$	\$ 17,500	
<b>PRIORITY - 6:</b>				
• The Department of Law is requesting funds for a small standalone computer system for inhouse processing and batch communication with GGCC. The Division of ADP supports this only if contingencies noted in Volume II on the 1980 ADP Master Plan are met. Equipment and associated operating cost is:		\$ 74,429		
<b>TOTAL</b>		<b>\$ 1,000,840</b>	<b>\$104,573</b>	

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### CASH FUNDING RECOMMENDATION TO DIVISION OF ADP

This is a proposal to allow the JBC to "refinance" what is normally general funded ADP equipment costs with cash funds. The cash funds are to be generated by capturing the residual value of ADP equipment sold on the open market.

Through the regular appropriations process, State agencies have purchased various components of data processing equipment. These items include the full range of equipment from data entry units to large computer systems. Therefore, the State of Colorado owns either equity or residual value in all of these items.

When equipment is traded in as a function of a new procurement, the State receives reductions in prices commensurate with a fair market value of the former asset. These one on one matching conditions generally only occur when the same vendor is involved, and then usually as a condition of the new procurement. When this occurs the State general fund does not reflect an expenditure for the value of the price reduction.

Another example is the release of owned computing equipment from one State agency, which is usable by another. When this option is available, equipment which could have significant sale value is placed with a second agency, and again the State general fund does not reflect an expenditure of the residual value.

These alternatives are frequently exercised and simply reflect good management of State computing resources.

On the other hand when a State owned asset is no longer deemed usable by the respective State agency or any other State agency and trade in alternatives are not an option, the equipment is placed on a bid sale and the revenues are deposited as income to the State general fund, while the replacement cost must be requested and appropriated. This creates a double expenditure over time and thus overstates the actual costs.

It is the proposal of the Department of Administration that the funds derived from the sale of surplus equipment not be deposited directly into the State General Fund, but rather show this revenue as cash funds to offset the costs of new acquisitions. The proposal has the advantage of reducing the amount of expenditures against the general fund appropriations by re-investing the residual value in the new equipment. This is consistant with the process used on direct trade in or relocation of equipment and overcomes the problem of overstating or double expenditure of General Fund. Likewise, the proposal would have a direct positive impact on the current 7% spending limitations, in that additional general fund dollars could be available for other programs.

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This fiscal year 1980-81 budget request contains general fund appropriation requests and recommendations to replace equipment that is obsolete in some cases and in other cases may be inadequate but relocatable. If the appropriations are made by the legislature to provide for the upgrades requested, the replaced equipment will have an estimated residual value of between \$200,000 and \$400,000. (Actual sale bids cannot be requested until the Long Bill is passed and the appropriations are known.) Therefore, if this proposal is accepted, it is recommended that a \$400,000 cash appropriation be made to the Division of ADP. The Division of ADP will then apply all revenues received from the sale of ADP equipment against the cost of the replacement equipment and/or the retirement of current debt obligations on equipment already in the State's inventory, and revert on a dollar for dollar basis, General Fund appropriations of the affected agency or institution. Full accounting of all such transactions will be made annually. (See page )

C. PRIORITIES - HIGHER EDUCATION

All priorities are in addition to the ongoing and inflationary budget.

Individual institutional budget requests were reviewed by the Division of ADP and the Higher Education ADP Advisory Board. Recommendations are made for each institution on the detail budget forms. All recommendations were made on a need basis and did not necessarily address a 7% limitation. In this regard ADP is not treated as a program budget.

The Higher Education ADP Advisory Board elected not to include the University of Colorado Medical Center in their deliberations, due to the specialized nature of that facility.

The following priority items are a product of the Division of ADP. The ADP Advisory Board did not review or pass judgement on this priority listing.

	COST	
	General Fund	Cash
1. University of Colorado - Colorado Springs Reduction in service fees General Fund (base)	\$ (56,008)	
University of Colorado - Denver Reduction in service fees General Fund (base) Request of \$30,959	\$ (28,708)	
Univeristy of Colorado - Boulder Offset of cash revenues from above sources to General Fund	\$ 30,000	
Net Reduction	\$ (54,716)	
2. Additional funds required to implement the Higher Education Accounting System in the remainder of the Community Colleges		
Lamar Community College	\$ 13,237	
Otero Junior College	17,000	
Pikes Peak Community College	15,000	
Trinidad Community College	12,253	
Pueblo Vocational Community College	1,992	

		<u>General Fund</u>	<u>COST</u>	<u>Cash</u>
Community College of Denver (additional FTE to maintain the central Higher Education accounting applica- tion for all community colleges)	1.0 FTE		\$ 22,500	
Total all Community Colleges			\$ 81,964	
3. Western State College New general purpose computer on a four year pay plan.			\$ 60,000	
4. University of Northern Colorado Continuation of payments for installed mini-computer for the on-line registra- tion system.			\$ 20,356	
5. Arapahoe Community College New distributed mini-computer			\$ 43,500	
6. Community College of Denver New distributed mini-computers at Red Rocks and Auraria			\$ 56,124	
7. Adams State College One additional FTE programmer			\$ 18,575	
8. Colorado School of Mines Software fees for installed computer			\$ 44,000	
9. University of Colorado Additional disk capacity			\$ 58,345	
TOTAL			\$ 328,148	-0

## STATE SUMMARY

## STATEWIDE ADP HISTORICAL SUMMARY

	<u>1969-70 ACTUAL</u>	<u>1970-71 ACTUAL</u>	<u>1971-72 ACTUAL</u>	<u>1972-73 ACTUAL</u>	<u>1973-74 ACTUAL</u>	<u>1974-75 ACTUAL</u>	<u>1975-76 ACTUAL</u>
ADP FYE	674.8	802.8	851.0	844.2	883.1	967.5	929.6
ADP DOLLARS	10,507,651	12,425,597	14,948,381	14,953,759	17,906,408	24,206,235	22,677,878
% of STATEWIDE APPROPRIATION*	3.5	2.5	1.9	1.6	1.8	1.9	1.6
STATE APPROPRIATION*	299,646,749	495,174,679	795,335,325	903,891,788	1,000,838,959	1,248,380,399	1,381,664,521

	<u>1976-77 ACTUAL</u>	<u>1977-78 ACTUAL</u>	<u>1978-79 ACTUAL</u>	<u>1979-80 ESTIMATED</u>	<u>1980-81 REQUEST</u>	<u>1980-81 RECOMMENDED</u>
ADP FYE	993.8	1,029.39	1,018.65	1073.07	1138.87	1121.77
ADP DOLLARS	29,956,097	29,644,589	33,090,330	40,204,188	42,757,112	39,725,383
% of STATEWIDE APPROPRIATION*	2.0	1.8	1.8	1.9		
STATE APPROPRIATION*	1,516,768,292	1,634,468,995	1,829,251,942	2,101,739,293		

\*NOT INCLUDING CAPITAL CONSTRUCTION

1980

STATE OF  
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ADP MASTER PLAN

STATE OF COLORADO  
ADP SUMMARY

	1978-79 FTE ACTUAL \$	1979-80 FTE ESTIMATE \$		1980-81 FTE REQUEST \$		1980-81 FTE RECOMMEND. \$
		FTE	\$	FTE	\$	
AGENCY OPERATED ADP PERSONAL SERVICES OPER. EXP. (INCL. TRAVEL) EQUIPMENT	666.65 11,291,846 4,281,158 6,387,591	705.97 13,073,835 4,581,309 7,087,111	732.17 13,467,241 4,693,824 6,685,721	730.17 13,432,423 4,649,703 6,686,791		
TOTAL AGENCY OPERATED ADP	666.65	21,960,617	705.97	24,742,075	732.17	24,846,786
HIGHER EDUCATION PERSONAL SERVICES OPER. EXP. (INCL. TRAVEL) EQUIPMENT	352.00 6,372,549 1,655,017 3,102,133	372.10 7,437,959 2,015,285 6,008,869	406.70 8,205,997 2,748,106 6,956,223	391.60 7,929,675 1,925,353 5,101,438		
TOTAL HIGHER EDUCATION	352.00	11,129,713	372.10	15,462,113	406.70	17,910,326
STATE TOTAL PERSONAL SERVICES OPER. EXP. (INCL. TRAVEL) EQUIPMENT	1,018.65 17,664,195 5,936,175 9,489,024	1,078.07 20,511,794 6,596,594 13,095,980	1,138.87 21,673,238 7,441,930 13,641,944	1,121.77 21,362,098 6,575,056 11,788,229		
TOTAL	1,018.65	33,090,330	1,078.07	40,204,188	1,138.87	42,757,112

1980 ADP MASTER PLAN  
STATE OF COLORADO

STATE OF COLORADO  
AGENCY DETAILS BY SOURCE OF FUNDS

AGENCY	1979-80 ESTIMATE			1980-81 REQUEST			1980-81 RECOMMENDED		
	GENERAL AUGMENTING FUND		REVENUE	GENERAL AUGMENTING FUND		REVENUE	GENERAL AUGMENTING FUND		REVENUE
	TOTAL			TOTAL			TOTAL		
<b>AGENCY OPERATED ADP</b>									
AUTOMATED DATA PROCESSING	406,207	486,207		491,573	491,573		491,573	491,573	
COMP. INSURANCE FUND	570,710	570,910		415,086	415,086		415,086	415,086	
DEPARTMENT OF AGRICULTURE	20,166	20,166		20,166	20,166		21,378	21,378	
DEPARTMENT OF EDUCATION	293,360	263,797	29,563	315,934	293,642	22,292	315,534	293,642	22,292
DEPARTMENT OF HEALTH	747,901	507,972	235,929	763,233	502,550	260,683	763,233	502,550	260,683
DEPARTMENT OF HIGHWAYS	2,238,904	2,228,904		2,156,265	2,156,265		2,156,265	2,156,265	
DEPARTMENT OF INSTITUTIONS	914,199	848,571	65,628	993,934	929,371	64,563	993,934	929,371	64,563
DEPARTMENT OF LAW	239,260	239,260		323,886	323,886		323,886	323,886	
DEPARTMENT OF PERSONNEL	175,483	175,483		169,593	169,593		169,593	169,593	
DEPARTMENT OF REVENUE	4,127,951	1,592,344	2,535,607	4,589,057	2,531,441	2,531,441	4,589,057	2,531,441	2,531,441
DEPARTMENT OF STATE	255,979	255,979		172,095	172,095		126,769	126,769	
DEPARTMENT OF TREASURY	40,313	4,6,313		50,259	50,259		48,637	48,637	
DEPT. OF CORRECTIONS	484,825	408,908	75,917	495,923	362,541	133,382	495,923	362,541	133,382
DEPT. OF LOC. AFF. ADMIN.	155,801	159,621	36,060	203,025	192,466	5,559	190,605	181,046	9,559
DEPT. OF LOC. AFF. CBI	1,645,254	955,336	689,918	1,643,291	1,060,775	582,516	1,653,225	1,070,709	582,516
DEPT. OF MILITARY AFFAIRS	2,680	2,680		2,316	2,316		2,316	2,316	
DEPT. NAT. RES. ADMIN.	244,142	16,076	228,066	263,420	39,250	224,170	293,420	39,250	254,170
DEPT. NAT. RES. WATER	137,546	99,033	38,513	137,546	99,033	38,513	137,546	99,033	38,513
DEPT. OF PLANNING & BUDGET	30,650	30,650		30,760	38,760		38,760	38,760	
DEPT. OF REGULATORY AGENCIES	352,793	121,469	234,324	380,921	127,783	253,138	373,665	120,527	253,138
DEPT. OF SOCIAL SERVICES	1,009,198	686,255	322,943	1,089,512	633,280	655,232	1,089,512	633,280	655,232
DIVISION OF EMPLOYMENT	3,419,241	3,419,241		3,223,966	3,223,966		3,223,966	3,223,966	
DIVISION OF LABOR	164,611	164,611		269,647	269,647		248,059	248,059	
GEN GOVT COMPUTER CENTER	5,506,375	4,914,370	592,005	5,144,233	4,472,602	671,631	5,144,233	4,472,602	671,631
GENERAL ASSEMBLY	291,000	291,000		306,500	306,500		306,500	306,500	
JUDICIAL BRANCH	831,833	647,153	184,680	668,487	561,87	105,000	666,487	561,87	105,000
LEGISLATIVE COUNCIL	47,915	47,915		51,991	51,991		51,991	51,991	
LEGISLATIVE DRAFTING OFFICE	246,028	246,028		261,332	261,332		264,347	264,347	
OFFICE OF STATE AUDITOR	18,670	18,670		8,835	8,835		8,835	8,835	
TOTAL AGENCY OPERATED ADP	24,742,075	13,239,867	11,502,208	24,846,786	13,499,349	11,347,437	24,768,917	13,391,480	11,377,437
TOTAL HIGHER EDUCATION	15,462,113	10,942,001	4,520,052	17,910,326	15,133,448	2,776,880	14,526,466	12,066,791	2,829,675

STATE TOTALS

40,204,186 24,161,928 16,022,260 42,757,112 28,632,795 14,124,317 39,725,383 25,058,271 14,267,112

1980

STATE  
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	STATE OF COLORADO AGENCY TOTALS BY SOURCE OF FUNDS			1980-81 REQUEST			1980-81 RECOMMENDED		
	1979-80 ESTIMATE		GENERAL AUGMENTING REVENUE	TOTAL	GENERAL AUGMENTING REVENUE		TOTAL	GENERAL AUGMENTING REVENUE	
	GENERAL FUND	FUND			GENERAL FUND	FUND		GENERAL FUND	FUND
<b>HIGHER EDUCATION</b>									
ADAMS STATE COLLEGE	144,556	138,556	6,000	175,256	168,256	7,000	172,279	165,279	7,000
AVAPAHOE COMM. COLLEGE	135,022	127,665	7,357	218,400	218,400	218,400	218,400	218,400	218,400
COLORADO SCHOOL OF MINES	2,905,588	806,507	2,059,081	1,262,423	543,807	318,616	1,253,241	934,625	318,616
COLORADO STATE UNIV.	2,731,441	1,946,057	805,384	2,943,672	2,655,914	677,758	2,916,121	2,016,568	959,553
COLUMBIA OF DENVER	515,685	494,765	20,900	631,720	608,855	22,865	642,222	619,357	22,865
FORT LEWIS COLLEGE	230,573	230,573		279,006	279,006		279,455	257,455	
LAMAR COMM. COLLEGE	40,603	39,265	1,338	60,561	60,561		52,502	52,502	
MESA COLLEGE	267,943	267,943		276,300	276,300		249,457	249,457	
METROPOLITAN STATE COLLEGE	434,948	423,416	11,532	510,365	498,833	11,532	503,424	491,892	11,532
OTERO JUNIOR COLLEGE	110,191	106,316	3,875	164,453	164,453		137,391	126,391	11,000
PIKES PEAK COMM. COLLEGE	294,027	262,511	31,516	325,645	296,114	29,531	322,110	292,579	29,531
PUEBLO VOCATIONAL COMMUNITY	26,596	26,596		53,544	53,544		47,995	47,995	
TRINIDAD STATE JK. COLLEGE	113,584	113,584		130,519	130,519		130,519	130,519	
UNIV OF COLOR. COLO. SPRINGS	296,795	296,795		328,874	328,874		263,166	263,166	
UNIV OF COLOR. DENVER	314,940	314,940		382,647	382,647		351,688	351,688	
UNIV OF COLOR. MED. CTR.	1,714,087	1,570,834	143,253	4,219,096	4,061,518	157,578	1,872,788	1,715,210	157,578
UNIV OF COLORADO BOULDER	3,926,454	2,626,454	1,330,000	4,204,006	2,674,006	1,330,000	4,164,540	2,814,540	1,350,000
UNIV OF NORTHERN COLORADO	662,991	613,806	49,185	680,045	658,045	22,000	680,045	658,045	22,000
UNIV OF SOUTHERN COLORADO	356,957	356,957	719	598,250	598,250		397,988	397,988	
WESTERN STATE COLLEGE	189,092	179,180	9,912	465,544	465,544		263,535	263,535	
<b>TOTAL HIGHER EDUCATION</b>	<b>15,462,113</b>	<b>10,942,061</b>	<b>4,520,052</b>	<b>17,910,326</b>	<b>15,133,446</b>	<b>2,776,680</b>	<b>14,956,466</b>	<b>12,066,791</b>	<b>2,839,675</b>

1980

STATE OF  
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ADP MASTER PLAN

1980

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# ADP MASTER PLAN

STATE OF COLORADO  
TOTAL COST BY AGENCY

	1978-79			1979-80			1980-81			FTE RECOMMENDED \$
	FTE	ACTUAL \$	ESTIMATE \$	FTE	ESTIMATE \$	REQUEST \$	FTE	ESTIMATE \$	REQUEST \$	
<b>AGENCY OPERATED ADP</b>										
AUTOMATED DATA PROCESSING	12.80	497,294	14.00	486,207	14.00	491,573	14.00	491,573	14.00	491,573
COMP. INSURANCE FUND	18.40	398,678	20.40	570,913	21.30	415,086	21.30	415,086	21.30	415,086
DEPARTMENT OF AGRICULTURE	1.563	1,563	20,166	20,166	20,166	20,166	20,166	20,166	20,166	20,166
DEPARTMENT OF EDUCATION	8.77	258,193	9.75	293,363	10.90	315,934	10.90	315,934	10.90	315,934
DEPARTMENT OF HEALTH	27.60	595,292	33.60	747,901	34.00	763,233	34.00	763,233	34.00	763,233
DEPARTMENT OF HIGHWAYS	44.00	1,986,655	41.00	2,239,904	41.00	2,156,265	41.00	2,156,265	41.00	2,156,265
DEPARTMENT OF INSTITUTIONS	38.50	945,965	35.00	914,199	35.00	953,934	35.00	953,934	35.00	953,934
DEPARTMENT OF LAW	10.05	221,348	13.00	239,262	14.95	323,886	14.95	323,886	14.95	323,886
DEPARTMENT OF PERSONNEL	1.00	125,102	1.00	175,483	1.00	169,593	1.00	169,593	1.00	169,593
DEPARTMENT OF REVENUE	218.18	3,922,218	228.42	4,227,951	232.42	4,589,057	232.42	4,589,057	232.42	4,589,057
DEPARTMENT OF STATE		107,593		255,979		1,00		172,095		1,00
DEPARTMENT OF TREASURY	0.50	34,248	0.50	40,313	0.50	50,259	0.50	50,259	0.50	50,259
DEPT. OF CORRECTIONS	8.00	81,0578	5.00	48,425	8.10	455,923	8.10	455,923	8.10	455,923
DEPT. OF LOC. AFF. ADMIN.	2.80	136,537	3.80	195,681	4.00	202,025	4.00	202,025	4.00	202,025
DEPT. OF LOC. AFF. CBI	16.00	1,149,843	19.00	1,643,291	20.00	1,643,291	20.00	1,643,291	20.00	1,643,291
DEPT. OF MILITARY AFFAIRS										
DEPT. OF NAT. RES. ADMIN.	9.00	244,887	9.00	244,887	11.00	263,420	11.00	263,420	11.00	263,420
DEPT. OF NAT. RES. WATER	4.00	125,871	5.00	137,545	5.00	137,546	5.00	137,546	5.00	137,546
DEPT. OF PLANNING & BUDGET	2.0	642	2.0	650	3.0	760	3.0	760	3.0	760
DEPT. OF REGULATORY AGENCIES	1.80	197,755	7.50	355,793	8.00	380,921	8.00	373,665	8.00	373,665
DEPT. OF SOCIAL SERVICES	28.60	962,308	32.00	1,003,198	32.00	1,288,512	32.00	1,288,512	32.00	1,288,512
DIVISION OF EMPLOYMENT	76.00	2,559,652	74.00	3,413,241	78.00	3,223,966	78.00	3,223,966	78.00	3,223,966
CIVILIAN LABOR	5.20	140,214	6.00	164,611	7.00	269,647	7.00	269,647	7.00	269,647
GEN GOVT COMPUTER CENTER	111.00	4,601,936	124.00	5,506,375	129.00	5,144,233	127.00	5,144,233	127.00	5,144,233
GENERAL ASSEMBLY										
JUDICIAL BRANCH	14.45	1,297,012	13.00	831,833	13.00	666,487	13.00	666,487	13.00	666,487
LEGISLATIVE COUNCIL	3.00	45,861	3.00	47,915	3.00	51,991	3.00	51,991	3.00	51,991
LEGISLATIVE DRAFTING OFFICE	7.00	189,972	8.00	246,028	8.00	261,332	8.00	264,347	8.00	264,347
OFFICE OF STATE AUDITOR										
TOTAL AGENCY OPERATED ADP	666.65	21,960,617	705.97	24,742,075	732.17	24,946,786	730.17	24,946,786	730.17	24,946,786
TOTAL HIGHER EDUCATION	352.00	11,129,713	372.10	15,442,113	406.70	17,910,326	391.60	14,456,466	391.60	14,456,466
<b>STATE TOTALS</b>	<b>1,018.65</b>	<b>33,090,330</b>	<b>1,078.07</b>	<b>40,204,183</b>	<b>1,138.87</b>	<b>42,757,112</b>	<b>1,121.77</b>	<b>39,725,383</b>		

STATE OF COLORADO  
TOTAL COST BY AGENCY

	1978-79			1979-80			1980-81			FTE RECOMMENDED \$
	FTE	ACTUAL \$	ESTIMATE \$	FTE	ESTIMATE \$	REQUEST \$	FTE	ESTIMATE \$	REQUEST \$	
<b>HIGHER EDUCATION</b>										
ADAMS STATE COLLEGE	6.00	127,638	6,00	144,555	7,00	175,256	7,00	172,279		
ARAPAHOE COMM. COLLEGE	5.70	120,624	6,00	135,022	8,50	218,400	8,50	218,400		
COLU SCHOOL OF MINES	15.10	4,649,334	19,90	2,905,588	22,60	1,253,241	22,20	1,253,241		
COLU STATE UNIV.	77.30	2,677,202	75.20	2,751,441	74,80	2,943,972	75,20	2,943,972		
COMM. CULL. OF DENVER	20.80	473,023	22,40	515,685	22,40	631,720	23,40	642,222		
FORT LEWIS COLLEGE	6.50	141,106	7,00	230,573	9,00	279,006	8,00	257,455		
LAHAR COMM. COLLEGE	1.70	36,758	1,70	40,603	2,00	60,561	1,70	52,562		
MESA COLLEGE	4.60	146,110	7,00	267,943	7,00	276,306	7,00	249,057		
METROPOLITAN STATE COLLEGE	13.20	376,620	14,00	434,943	17,00	510,365	17,00	503,424		
OTERO JUNIOR COLLEGE	3.20	99,695	3,50	110,161	3,50	164,453	3,50	137,391		
PIKES PEAK COMM. COLLEGE	8.20	210,223	12,00	294,027	11,50	325,645	11,50	322,110		
PUEBLO VOCATIONAL COMMUNITY			0,60	20,595	1,70	53,544	1,50	47,995		
TRINIDAD STATE JR. COLLEGE	2.60	65,738	4,10	113,584	4,10	130,519	4,10	130,519		
UNIV OF COLO. COLOR. SPRINGS	6.20	220,449	6,00	296,195	7,80	328,874	7,80	263,166		
UNIV OF COLO. DENVER	7.50	297,910	7,50	314,943	8,00	382,647	8,00	351,688		
UNIV OF COLO. MED. CTR.	42.40	1,553,621	43,00	1,714,037	59,00	4,219,046	47,00	1,672,766		
UNIV OF COLORADO BOULDER	87.10	3,061,165	92,80	3,956,554	52,80	4,204,006	52,30	4,164,540		
UNIV OF NORTHERN COLORADO	22.00	597,716	22,00	662,911	22,00	680,045	22,00	680,045		
UNIV OF SOUTHERN COLORADO	14.40	328,457	14,40	356,997	17,00	558,250	15,40	397,988		
WESTERN STATE COLLEGE	7.00	150,524	7,00	189,092	9,00	465,544	8,00	263,535		
<b>TOTAL HIGHER EDUCATION</b>	<b>352.00</b>	<b>11,129,713</b>		<b>372.10</b>	<b>15,462,113</b>		<b>406.70</b>	<b>17,910,326</b>		<b>391.60</b>

1980  
ADP MASTER PLAN

STATE OF COLORADO  
TOTAL PERSONAL SERVICES COST

	1978-79 FTE ACTUAL \$	1979-80 FTE ESTIMATE \$	1980-81 FTE REQUEST \$	1980-81 FTE RECOMMENDED \$
AGENCY OPERATED ADP				
AUTOMATED DATA PROCESSING	12.80	403,148	14.00	451,860
COMP. INSURANCE FUND	18.40	248,000	20.40	329,750
DEPARTMENT OF AGRICULTURE	8.77	201,172	9.75	238,047
DEPARTMENT OF EDUCATION	27.60	526,767	33.60	666,462
DEPARTMENT OF HEALTH	44.00	938,945	41.00	988,115
DEPARTMENT OF HIGHWAYS	38.50	722,027	35.00	679,283
DEPARTMENT OF INSTITUTIONS	10.05	157,727	13.00	191,062
DEPARTMENT OF LAW	1.00	29,062	1.00	29,233
DEPARTMENT OF PERSONNEL	218.18	2,943,913	228.42	3,245,544
DEPARTMENT OF REVENUE				
DEPARTMENT OF STATE	0.50	6,278	0.50	6,021
DEPARTMENT OF TREASURY	8.00	118,870	5.00	133,753
DEPT. OF CORRECTIONS	2.80	38,479	3.80	80,243
DEPT. OF LOC. AFF. ADMIN.	16.00	354,724	19.00	443,821
DEPT. OF LOC. AFF. CBI				
DEPT. OF MILITARY AFFAIRS	9.00	180,648	9.00	179,943
DEPT. OF NAT. RES. ADMIN.	4.00	24,839	5.00	63,596
DEPT. OF NAT. RES. WATER				
DEPT. OF PLANNING & BUDGET				
DEPT. OF REGULATORY AGENCIES	1.80	36,551	7.50	174,891
DEPT. OF SOCIAL SERVICES	28.60	615,151	32.00	699,651
DIVISION OF EMPLOYMENT	76.00	1,180,070	74.00	1,402,181
DIVISION OF LABOR	5.20	89,430	6.00	102,192
GEN GOVT COMPUTER CENTER	111.00	2,084,955	124.00	2,518,235
GENERAL ASSEMBLY	14.45	255,796	13.00	266,351
JUDICIAL BRANCH	3.00	38,391	3.00	40,445
LEGISLATIVE COUNCIL	7.00	96,9C3	8.00	143,127
LEGISLATIVE DRAFTING OFFICE				
OFFICE OF STATE AUDITOR				
TOTAL AGENCY OPERATED ADP	666.65	11,291,846	705.97	13,073,835
TOTAL HIGHER EDUCATION	352.00	6,372,549	372.10	7,437,959
STATE TOTALS	1,018.65	17,664,395	1,078.07	20,511,796
			1,138.87	21,673,238
			1,121.77	21,362,098

1980

STATE OF COLORADO

ADP MASTER PLAN

STATE OF COLORADO  
TOTAL PERSONAL SERVICES COST

	1978-79 FTE ACTUAL \$	1979-80 FTE ESTIMATE \$	1980-81 FTE REQUEST \$	1980-81 FTE RECOMMENDED \$
HIGHER EDUCATION				
ADAMS STATE COLLEGE	6.00	84,147	6.00	94,057
ARAPAHOE COMM. COLLEGE	5.70	85,718	6.00	93,695
COLORADO SCHOOL OF MINES	15.10	287,575	19.20	446,793
COLOR STATE UNIV.	77.30	1,412,455	75.20	1,523,473
COMM. COLL. OF DENVER	20.80	313,473	22.40	362,844
FORT LEEHS COLLEGE	6.50	97,061	7.00	128,593
LAMAR COMM. COLLEGE	1.70	19,626	1.70	23,743
MESA COLLEGE	4.60	78,548	7.00	129,574
METROPOLITAN STATE COLLEGE	13.20	208,836	14.00	255,902
PIERCO JUNIOR COLLEGE	3.20	56,570	3.50	72,934
PIKES PEAK COMM. COLLEGE	8.20	135,764	12.00	219,215
PUEBLO VOCATIONAL COMMUNITY				
TRINIDAD STATE JR. COLLEGE	2.60	44,564	4.10	68,429
UNIV OF COLOR. COLOR. SPRINGS	6.20	81,461	6.00	93,053
UNIV OF COLOR. DENVER	7.50	92,283	7.50	99,104
UNIV OF COLOR. MED. CTR.	42.90	757,028	43.00	875,448
UNIV OF COLORADO BOULDER	87.10	1,871,051	92.80	2,104,266
UNIV OF NORTHERN COLORADO	22.00	372,690	22.00	415,297
UNIV OF SOUTHERN COLORADO	14.40	249,437	14.40	281,033
WESTERN STATE COLLEGE	7.30	117,262	7.00	129,236
TOTAL HIGHER EDUCATION	352.00	6,372,549	372.10	7,437,959
			406.70	8,205,997
				391.60
				7,929,675

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STATE  
COLORADO

ADP MASTER PLAN

STATE OF COLORADO  
TOTAL EQUIPMENT COSTS

	ACTUAL \$	ESTIMATE \$	REQUEST \$	RECOMMENDED \$
AGENCY OPERATED ADP				
AUTOMATED DATA PROCESSING	6,114	104,180	35,884	35,884
COMP. INSURANCE FUND	21,538	5,901	5,901	5,901
DEPARTMENT OF AGRICULTURE	32,532	29,805	29,806	29,806
DEPARTMENT OF EDUCATION	46,465	65,424	72,363	72,363
DEPARTMENT OF HEALTH	130,132	287,099	174,150	174,150
DEPARTMENT OF HIGHWAYS	187,670	193,060	171,367	171,367
DEPARTMENT OF INSTITUTIONS	26,543	28,531	72,293	72,293
DEPARTMENT OF LAW	12,566	15,585	17,050	17,050
DEPARTMENT OF PERSONNEL	777,846	616,746	1,004,246	1,004,246
DEPARTMENT OF REVENUE	16,008	22,944	22,944	22,944
DEPARTMENT OF STATE	4,460	2,698	17,492	18,140
DEPARTMENT OF TREASURY	286,275	27,528	67,335	67,335
DEPT. OF CORRECTIONS	5,152	71,723	66,224	66,224
DEPT. OF LOC. AFF. ADMIN.	770,301	1,164,425	1,162,232	1,169,354
DEPT. OF LOC. AFF. CBI				
DEPT. OF MILITARY AFFAIRS				
DEPT. OF NAT. RES. ADMIN.				
DEPT. OF NAT. RES. WATER				
DEPT. OF PLANNING & BUDGET	18,275	32,963	20,700	20,700
DEPT. OF REGULATORY AGENCIES	11,600	17,968	29,836	23,136
DEPT. OF SOCIAL SERVICES	1,00,019	109,800	132,091	132,091
DIVISION OF EMPLOYMENT	1,061,233	1,649,264	1,257,892	1,257,892
DIVISION OF LABOR	8,356	10,000	17,752	17,752
GEN GOVT COMPUTER CENTER	1,983,634	2,331,550	2,005,690	2,005,690
GENERAL ASSEMBLY	68,400	62,400	62,400	62,400
JUDICIAL BRANCH	746,364	124,839	135,286	135,286
LEGISLATIVE COUNCIL	7,470	7,470	7,470	7,470
LEGISLATIVE DRAFTING OFFICE	39,510	54,976	54,796	54,796
OFFICE OF STATE AUDITOR		18,420	8,335	8,335
TOTAL AGENCY OPERATED ADP	6,387,591	7,087,111	6,686,721	6,686,721
TOTAL HIGHER EDUCATION	3,1C2,133	6,008,869	6,956,223	5,101,438
STATE TOTAL	9,489,724	13,095,960	13,641,944	11,788,229

STATE OF COLORADO  
TOTAL EQUIPMENT COSTS

	ACTUAL \$	ESTIMATE \$	REQUEST \$	RECOMMENDED \$
HIGHER EDUCATION				
ADAMS STATE COLLEGE	36,934	40,340	47,351	44,374
ARAPAHOE COMM. COLLEGE	30,284	27,105	64,140	64,140
COLORADO SCHOOL OF MINES	121,159	2,118,980	585,086	585,086
COLORADO STATE UNIV.	637,200	870,664	875,862	932,515
COMM. CULL. OF DENVER	120,560	99,845	174,431	174,431
FORT LEWIS COLLEGE	33,775	86,095	88,405	88,405
LAHAR COMM. COLLEGE	4,334	4,334	15,056	15,056
MESA COLLEGE	54,296	106,532	111,132	86,400
METROPOLITAN STATE COLLEGE	106,272	111,929	109,429	109,429
OTERO JUNIOR COLLEGE	38,312	30,457	83,320	47,457
PIKES PEAK COMM. COLLEGE	58,412	58,376	94,792	92,07
PUEBLO VOCATIONAL COMMUNITY				
TRINIDAD STATE JR. COLLEGE	17,462	12,239	12,239	12,239
UNIV OF COLORADO - COLOR. SPRINGS	73,354	37,904	50,157	50,157
UNIV OF COLOR. DENVER	70,291	83,700	109,019	99,319
UNIV OF COLOR. MED. CTR.	458,612	85,492	128,577	128,577
UNIV OF COLORADO BOULDER	771,623	1,434,413	2,025,676	570,236
UNIV OF NORTHERN COLORADO	182,019	194,130	215,368	1,621,583
UNIV OF SOUTHERN COLORADO	55,395	54,212	224,317	67,201
WESTERN STATE COLLEGE	31,839	49,360	286,638	97,258
TOTAL HIGHER EDUCATION	3,102,133	6,008,869	6,956,223	5,101,438

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STATE  
COLORADO

ADP MASTER PLAN

STATE OF COLORADO  
TOTAL OPERATING COSTS

	ACTUAL \$	ESTIMATE \$	REQUEST \$	RECOMMENDED \$
AGENCY OPERATED ADP	88,032	34,347	37,156	37,156
AUTOMATED DATA PROCESSING	129,140	136,980	68,600	68,600
CMP. INSURANCE FUND	1,563	14,265	15,477	15,477
DEPARTMENT OF AGRICULTURE	24,489	25,508	26,645	26,045
DEPARTMENT OF EDUCATION	22,060	16,015	17,468	17,468
DEPARTMENT OF HEALTH	917,778	963,690	994,000	994,000
DEPARTMENT OF HIGHWAYS	37,268	41,856	70,852	70,852
DEPARTMENT OF INSTITUTIONS	37,078	19,660	26,500	26,500
DEPARTMENT OF LAW	83,474	130,660	122,609	122,609
DEPARTMENT OF PERSONNEL	250,459	265,661	319,899	319,899
DEPARTMENT OF REVENUE	91,585	233,035	123,540	78,214
DEPARTMENT OF STATE	23,510	31,594	26,443	24,173
DEPARTMENT OF TREASURY	405,433	323,538	278,997	278,997
DEPT. OF CORRECTIONS	92,906	43,710	51,042	39,622
DEPT. OF LOC. AFF. ADMIN.	24,818	37,008	24,048	26,860
DEPT. OF LOC. AFF. CBI				
DEPT. OF MILITARY AFFAIRS				
DEPT. OF NAT. RES. ADMIN.				
DEPT. OF NAT. RES. WATER				
DEPT. OF PLANNING & BUDGET	45,111	35,061	11,142	41,142
DEPT. OF REGULATORY AGENCIES	82,757	40,987	50,066	50,066
DEPT. OF SOCIAL SERVICES	247,138	30,650	38,760	38,760
DIVISION OF EMPLOYMENT	355,349	162,934	159,673	159,673
DIVISION OF LABOR	42,426	199,147	379,865	379,865
GEN GOVT COMPUTER CENTER	539,327	52,119	450,211	450,211
GENERAL ASSEMBLY	212,600	59,590	131,967	110,379
JUDICIAL BRANCH	294,852	228,600	755,870	755,870
LEGISLATIVE COUNCIL		440,663	244,100	244,100
LEGISLATIVE DRAFTING OFFICE		250	221,501	221,501
OFFICE OF STATE AUDITOR				
TOTAL AGENCY OPERATED ADP	4,281,158	4,581,309	4,693,824	4,649,703
TOTAL HIGHER EDUCATION	1,055,017	2,015,285	2,748,106	1,925,353
<b>STATE TOTAL</b>	<b>5,336,175</b>		<b>6,596,590</b>	<b>6,575,056</b>
			<b>7,441,630</b>	

1980

STATE OF COLORADO

ADP MASTER PLAN

STATE OF COLORADO  
TOTAL OPERATING COSTS

	ACTUAL \$	ESTIMATE \$	REQUEST \$	RECOMMENDED \$
HIGHER EDUCATION				
ADAMS STATE COLLEGE	6,557	10,159	12,813	
ARAPAHOE COMM. COLLEGE	4,622	8,222	9,260	9,260
COLORADO SCHOOL OF MINES	40,600	339,815	150,405	150,405
COLORADO STATE UNIV.	420,507	351,304	488,726	452,726
COLUM. COLL. OF DENVER	38,585	52,916	83,281	73,762
FORT LEWIS COLLEGE	10,270	15,385	17,774	17,774
LAUREL COMM. COLLEGE	12,798	12,526	13,703	13,703
MESA COLLEGE	13,266	31,837	31,063	28,552
METROPOLITAN STATE COLLEGE	61,512	67,117	72,775	72,725
OTERO JUNIOR COLLEGE	4,613	6,800	9,600	17,000
PIKES PEAK COMM. COLLEGE	16,018	16,435	16,295	15,145
PUEBLO VOCATIONAL COMMUNITY		6,640	7,052	
TRINIDAD STATE JUNIOR COLLEGE	3,712	7,251	7,639	7,639
UNIV OF COLOR. COLOR. SPRINGS	65,694	120,037	105,147	49,139
UNIV OF COLOR. DENVER	135,336	130,364	138,760	147,801
UNIV OF COLOR. MED. CTR.	327,981	334,037	1,038,275	360,824
UNIV OF COLORADO BOULDER	418,491	417,715	437,696	437,696
UNIV OF NORTHERN COLORADO	43,007	53,664	45,158	45,158
UNIV OF SOUTHERN COLORADO	23,625	21,755	52,032	34,787
WESTERN STATE COLLEGE	7,423	10,726	11,052	11,052
TOTAL HIGHER EDUCATION	1,655,017	2,015,285	2,748,106	1,925,353

1980  
STATE OF COLORADO

ADP MASTER PLAN

## ADP BUDGET ANALYSIS

## AGENCY GENERAL ASSEMBLY

	1976-79 FTE/ACTUAL	1979-80 FTE/ESTIMATE	1980-81 FTE/REQUEST	\$	FTE/RECOMMEND \$
PERSONAL SERVICES					1930-81
OPERATING EXPENSE					
OPERATING EXPENSE OTHER					
EQUIPMENT -					1980-81 *
EQUIPMENT RENTAL	212,600	228,600	244,100		
EQUIPMENT C/O	62,400 6,000	62,400	62,400		
EQUIPMENT SUB-TOTAL	281,000	291,000	306,500		
TOTAL					
GENERAL FUND	281,000	291,000	306,500		
CASH					
FEDERAL					

## COMMENTS:

Outside Contract, per Joint Rule no. 31, dated December, 1978, for the CLEAR System. Contract is with Public Systems Associates.

For basically the same service, annual cost has risen from \$186,000 in FY 1977-78 to \$306,500 in FY 1980-81. The cost increase for FY 1980-81 is slightly over 5% and accounts for increased maintenance cost and increased expenses due to inflation.

\* Includes undifferentiated cost of 5 terminals, communication lines, and personnel. Locations of terminals are:

- 1 in JBC Offices
- 1 in Legislative Council
- 1 in Senate Offices
- 1 in House Offices
- 1 in Minority Leadership Offices

## BUDGET ANALYSIS BY AGENCY

ADP BUDGET ANALYSIS		AGENCY		LEGISLATIVE COUNCIL	
	1978-79 FTE/ACTUAL	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/ESTIMATE	\$
PERSONAL SERVICES	3.00	38,391	3.00	40,445	3.00
OPERATING EXPENSE				44,521	3.00
OPERATING EXPENSE OTHER					44,521
EQUIPMENT -					
EQUIPMENT RENTAL					
EQUIPMENT C/O					
EQUIPMENT SUB-TOTAL		7,470		7,470	
TOTAL	3.00	45,861	3.00	47,915	3.00
GENERAL FUND	3.00	45,861	3.00	47,915	3.00
CASH				51,991	3.00
FEDERAL					51,991

## COMMENTS:

Personnel and equipment remain at the same level budgeted in FY 1979-80. Increases are due to the escalation of personnel cost.

## ADP BUDGET ANALYSIS

## AGENCY LEGISLATIVE DRAFTING OFFICE

	1978-79 FTE/ACTUAL \$	1979-80 FTE/ESTIMATE \$	1980-81 FTE/REQUEST \$	1980-81 FTE/RECOMMEND \$
PERSONAL SERVICES	7.00	96,903	143,127	158,331
OPERATING EXPENSE		8.00	8.00	8.00
OPERATING EXPENSE OTHER	53,559	48,105	48,205	51,220
<b>EQUIPMENT -</b>				
EQUIPMENT RENTAL	39,510	54,796	54,796	54,796
EQUIPMENT C/O				
<b>EQUIPMENT SUB-TOTAL</b>	<b>39,510</b>	<b>54,976</b>	<b>54,796</b>	<b>54,796</b>
<b>TOTAL</b>	<b>189,972</b>	<b>246,028</b>	<b>261,332</b>	<b>264,347</b>
GENERAL FUND	7.00	189,972	8.00	8.00
CASH				
FEDERAL				

## COMMENTS:

One FTE has been added in administrative area to cope with increased workload.

Cost of additional software acquired from Data Retrieval Corporation to enhance security and provide increased capability in photocomposition is reflected in operating expense.

Decreased cost of printers is due to actual costs being less than that amount estimated.

There is the possibility that other agencies may tie into ALTER July 1, 1980 such as the State Auditor and State Personnel Department. Inquiries and indication of interest have been made by other agencies, such as the Department of Social Services, which may expand the use of the existing ALTER or require that a parallel ALTER be installed at some future date. Division of ADP is not supportive of installing a parallel copy of ALTER and has advised the Legislative Drafting Office (LDO) of this posture. Advisement has also been given that as interested agencies approach LDO and express their desire to become a user of ALTER, that LDO perform sufficient study to determine the total impact of such use rather than allowing indiscriminate proliferation. This will help project, plan, and budget for the future. Division of ADP would be available to assist in this effort. LDO has not produced an ADP Plan since 1974.

The LEAA grant has been approved allowing the Department of Corrections to tie into ALTER to input prior opinions of the Colorado Supreme Court and the Colorado Court of Appeals. It is anticipated that this will require between two and three years to complete. The GCC has been advised as to the schedule of additional disk drives necessary for the storage of the increased data base.

Operating expense includes \$3,015 for State Agency Service Contract.

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## ADP BUDGET ANALYSIS

## AGENCY OFFICE OF STATE AUDITOR

	1978-79 FTE/ACTUAL \$	1979-80 FTE/ESTIMATE \$	1980-81 FTE/REQUEST \$	1980-81 FTE/RECOMMEND \$
PERSONAL SERVICES				
OPERATING EXPENSE				
OPERATING EXPENSE OTHER				
<b>EQUIPMENT -</b>				
EQUIPMENT RENTAL		420	8,335	8,335 *
EQUIPMENT C/O		18,000		
<b>EQUIPMENT SUB-TOTAL</b>		18,420	8,335	8,335 *
<b>TOTAL</b>		18,670	8,835	8,835 *
<b>GENERAL FUND</b>				
CASH			8,835	8,835 *
FEDERAL				

## COMMENTS:

The State Auditor's office is currently in the process of acquiring word processing capability to help expedite the publication of documents resulting from the activities within the office. It is not known at this time whether or not the equipment will be purchased or leased with option. An encumbrance of \$18,000 has occurred in case the equipment is purchased (in FY 1979-80). If the equipment is acquired on a lease/purchase agreement, a portion of the encumbered funds will be used with the request reflecting lease purchase and ancillary funds to continue in FY 1980-81.

\*If purchase is opted, the request and recommendation for FY 1980-81 will be:

Personal Service	500
Operating Expense	4,675 (includes \$340 maint.)
Equipment	5,170
<b>TOTAL</b>	

If the equipment is contracted on a lease purchase option, the request and recommendation will stand as shown.

In either case, funds are being requested and recommended to install a terminal and printer so that inquiry can be made into the ALTER system.

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## ADP BUDGET ANALYSIS

## AGENCY JUDICIAL BRANCH

	1978-79 FTE/ACTUAL	\$	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	FTE/RECOMMEND	\$
PERSONAL SERVICES								
OPERATING EXPENSE	14.45	255,756	13.00	266,351	13.00	309,700	13.00	309,700
OPERATING EXPENSE OTHER		294,852		440,643		221,501		221,501
EQUIPMENT -								
EQUIPMENT RENTAL	591,747		124,839		135,286		135,286	
EQUIPMENT C/O	154,617							
EQUIPMENT SUB-TOTAL	746,364		124,839		135,286		135,286	
TOTAL	14.45	1,297,012	13.00	831,833	13.00	666,487	13.00	666,487
GENERAL FUND								
CASE	14.45	1,119,764	13.00	647,153	13.00	561,487	13.00	561,487
FEDERAL		177,248		184,630		105,000		105,000

## COMMENTS

Reduction in request amount is, for the most part, reflected as a result of actions taken to consume the Judicial/GGCC computer facility consolidation.

Division of ADP concurs with the judicial request of 13 FTE permanent staff (in 1979-80 7 permanent and 6 conversion personnel authorized) to maintain a reasonable level of programming/analyst capability. Without a full compliment of FTE, only a very minimal level of maintenance can be expected.

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## ADP BUDGET ANALYSIS

## AGENCY AUTOMATED DATA PROCESSING

	1978-79 FTE/ACTUAL	\$	1978-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	1980-81 FTE/RECOMMEND	\$
PERSONAL SERVICES								
OPERATING EXPENSE	12.80	403,148	14.00	451,860	14.00	454,417	14.00	454,417
OPERATING EXPENSE OTHER		24,638		23,347		25,756		25,756
OPERATING EXPENSE OTHER		63,394		11,000		11,400		11,400
EQUIPMENT -								
EQUIPMENT RENTAL								
EQUIPMENT C/O			6,114					
EQUIPMENT SUB-TOTAL		6,114						
TOTAL	12.80	497,294	14.00	486,207	14.00	491,573	14.00	491,573
GENERAL FUND	12.80	497,294	14.00	486,207	14.00	491,573	14.00	491,573
CASH								
FEDERAL								

## COMMENTS:

1. This request is for continuation of the same level of support.
2. FY 1978-79 Operating Expense - Other was for the Higher Education Consortium Study, the continuation of which is reflected in funding for the expenses of the Higher Education Advisory Board and Steering Committee.

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ADP BUDGET ANALYSIS		AGENCY AUTOMATED DATA PROCESSING (REVISED)			
	1978-79 FTE ACTUAL \$	1979-80 FTE/ESTIMATE \$	1980-81 FTE/REQUEST \$		1980-81 FTE/RECOMMEND \$
PERSOAL SERVICES	12.80	403,148	14.00	451,860	14.00
OPERATING EXPENSE		24,638		23,347	
OPERATING EXPENSE OTHER		63,394		11,000	
<b>EQUIPMENT -</b>					
EQUIPMENT RENTAL		6,114			400,000*
EQUIPMENT C/O		6,114			400,000
<b>EQUIPMENT SUB-TOTAL</b>	<b>12.80</b>	<b>497,294</b>	<b>14.00</b>	<b>486,207</b>	<b>14.00</b>
<b>TOTAL</b>	<b>12.80</b>	<b>497,294</b>	<b>14.00</b>	<b>486,207</b>	<b>14.00</b>
GENERAL FUND	12.80	497,294	14.00	486,207	14.00
CASH					491,573
FEDERAL					400,000

## COMMENTS:

1. This request is for continuation of the same level of support.
2. FY 1978-79 Operating Expense - Other was for the Higher Education Consortium Study, the continuation of which is reflected in funding for the expenses of the Higher Education Advisory Board and Steering Committee.
3. The recommended \$400,000 for Equipment C/O is being recommended as a cash appropriation to allow the Division of ADP to spend cash revenues received from the sale of equipment that cannot be effectively or economically used within State government. These revenues will be used to offset dollar for dollar current or future year General Fund capital outlay equipment costs. (See page 1.5)

\*not included in summary totals.

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## ADP BUDGET ANALYSIS

## AGENCY GEN GOVT COMPUTER CENTER

	1978-79 FTE/ACTUAL \$	1979-d0 FTE/ESTIMATE \$	1980-d1 FTE/REQUEST \$	1980-81 FTE/RECOMMEND \$
PERSONAL SERVICES	111.00	2,084,955	124.00	2,518,235
OPERATING EXPENSE		469,716		656,590
OPERATING EXPENSE OTHER		69,611		
<b>EQUIPMENT -</b>				
EQUIPMENT RENTAL		993,097	1,285,194	959,334
EQUIPMENT C/O		990,557	1,046,356	1,046,356
<b>EQUIPMENT SUB-TOTAL</b>		<b>1,983,634</b>	<b>2,331,550</b>	<b>2,005,690</b>
<b>TOTAL</b>	<b>111.00</b>	<b>4,607,936</b>	<b>124.00</b>	<b>5,506,375</b>
GENERAL FUND	111.00	3,892,435	87.50	4,914,370
CASH		715,501	36.50	592,005
FEDERAL				

## COMMENTS:

I. PERSCHIAL SERVICES:

a. The increase of 5.0 cash fund F.T.E. in the request year over the estimated year is in support of establishing five data entry operator positions to help reduce the need for outside data entry overload contracts. Currently, State agencies spend over \$200,000 annually on outside data entry overload contracts. It appears that the State could perform this function at less cost. The Division of ADP in their 1980 ADP Master Plan recommends a study be conducted to determine the most efficient and economical way to solve the data entry problems. (See copy of ADP Master Plan, Volume I, January 1980).

b. The reduction of 2.0 F.T.E. is consistent with Fiscal Year 1979-80 legislative intent for the consolidation of the Judicial Department Computer Center into GCCC. The two positions eliminated are computer scheduler and computer operator.

II. EQUIPMENT:

a. Data entry equipment funds of \$17,500 are requested to support the 5 requested data entry positions.

b. Two (2.0) megabytes of memory and an upgrade of the disk controllers is needed to support the consolidation. Disk storage is needed to support the normal growth for the end users.

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## ADP BUDGET ANALYSIS

## AGENCY DEPARTMENT OF AGRICULTURE

	1978-79 FTE/ACTUAL	\$	1979-80 FTE/ESTIMATE	\$	FTE/REQUEST	\$	1980-81 FTE/RECOMMEND	\$
PERSONAL SERVICES								
OPERATING EXPENSE								
OPERATING EXPENSE OTHER	1,963		14,265		14,265		15,477	
EQUIPMENT -								
EQUIPMENT RENTAL			4,245		4,245		4,245	
EQUIPMENT C/O			1,656		1,656		1,656	
EQUIPMENT SUB-TOTAL			5,901		5,901		5,901	
TOTAL	1,963		20,166		20,166		21,378	
GENERAL FUND								
CASH	1,963		20,166		20,166		21,378	
FEDERAL								

## COMMENTS:

The requested Operating Expense contains \$11,892 for programming/analysis support by the General Government Computer Center.

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## ADP BUDGET ANALYSIS

## AGENCY DEPT. OF CORRECTIONS

	1978-79 FTE/ACTUAL	\$	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	FTE/RECOMMEND
PERSONAL SERVICES	8.00	118,870	5.00	133,759	8.10	149,591	8.10
OPERATING EXPENSE		405,433		323,538		278,997	
OPERATING EXPENSE OTHER							
<b>EQUIPMENT -</b>							
EQUIPMENT RENTAL		13,285		27,528		30,116	
EQUIPMENT C/O		272,950				37,219	
<b>EQUIPMENT SUB-TOTAL</b>		286,275		27,528		67,335	
<b>TOTAL</b>	<b>8.00</b>	<b>810,578</b>	<b>5.00</b>	<b>484,825</b>	<b>8.10</b>	<b>495,923</b>	<b>8.10</b>
GENERAL FUND	8.00	635,360	5.00	408,908	7.00	362,541	7.00
CASH		168					
FEDERAL		175,050		75,917	1.10	133,382	1.10
COMMENTS:							

## GENERAL INFORMATION:

Represented above are the combined ADP budget requests for Corrections Administration, Case Work Development Grant and the Case Law Grant to be implemented by Correctional Industries for the Judicial Department.

## PERSONAL SERVICES:

3.1 new FTE are requested within the Department of Corrections ADP efforts. Two programmers (2.0 FTE) are needed in order to provide programming support for current and new correctional applications (\$40,149). Three such positions were lost during last years appropriation efforts leaving corrections with no application programmers. The other position (.1 FTE) is requested under a Federal LEAA grant requested by Correctional Industries in order to implement the first segment of the Case Law System for the Judicial Department. This position is needed to administer and supervise the data collections effort. This position is a Supervisor/Instructor (1.0 FTE) and an Accounting Manager (.1 FTE); both positions will be funded by the Federal Grant (\$29,016).

## OPERATING EXPENSE:

Under General operating expense \$168,406 is requested for the Administrative efforts, \$86,888 for the Case Work Development Grant for ADP services and \$23,703 for the Case Law Grant.

## EQUIPMENT RENTAL &amp; MAINTENANCE:

Only the Administrative effort has equipment rental requested in the amount of \$30,116.

## EQUIPMENT CAPITAL OUTLAY:

Only the Case Law Grant has equipment to be purchased in the amount of \$30,116 and a remote batch terminal.

## SOURCE OF FUNDS:

General Funds are requested in the following distribution:  
\$319,097 for Administrative efforts, \$43,444 for match dollars for the Case Work Development Grant.  
Federal Funds are requested in the following:  
\$43,444 for the Case Work Development Grant and \$89,938 for the Case History Grant.

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## ADP BUDGET ANALYSIS

## AGENCY DEPARTMENT OF EDUCATION

	1978-79 FTE/ACTUAL	\$	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	FTE/RECOMMEND	\$
PERSONAL SERVICES	8.77	201,172	9.75	238,047	10.93	260,083	10.90	260,083
OPERATING EXPENSE		24,489		25,508		26,045		26,045
OPERATING EXPENSE OTHER								
 EQUIPMENT								
EQUIPMENT RENTAL		14,227		17,797		25,257		25,257
EQUIPMENT C/O		14,305		12,008		4,549		4,549
EQUIPMENT SUB-TOTAL		28,532		29,805		29,806		29,806
 TOTAL	8.77	258,193	9.75	293,360	10.90	315,934	10.90	315,934
 GENERAL FUND								
CASH	8.77	241,060	8.90	263,797	9.90	293,642	9.90	293,642
FEUDERAL		17,133	0.85	29,563	1.00	22,292	1.00	22,292

## COMMENTS:

One additional programmer FTE is requested to provide support for studies by CDE made necessary by the 1979 Denver District Court ruling that the Public School Finance, Capital Reserve, and the Bond Redemption Fund Acts are unconstitutional.

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## ADP BUDGET ANALYSIS

## AGENCY DEPARTMENT OF HEALTH

	1978-79 FTE/ACTUAL	4	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	1980-81 FTE/RECOMMEND	\$
PERSONAL SERVICES	27.60	526,767	33.60	666,462	34.00	673,402	34.00	673,402
OPERATING EXPENSE		22,060		16,015		17,468		17,468
OPERATING EXPENSE OTHER								
<b>EQUIPMENT -</b>								
EQUIPMENT RENTAL		7,610		18,824		20,592		20,592
EQUIPMENT C/O		38,855		46,000		51,771		51,771
<b>EQUIPMENT SUB-TOTAL</b>		46,465		65,424		72,363		72,363
<b>TOTAL</b>	27.60	595,292	33.60	747,901	34.00	763,233	34.00	763,233
GENERAL FUND	20.40	442,457	22.00	507,972	22.00	502,550	22.00	502,550
CASH	7.20	152,835	11.60	239,929	12.00	260,683	12.00	260,683
FEDERAL								

## COMMENTS:

1. The funds requested are a continuation of the current level of support for the data processing program.
2. Capital Outlay is not the same as shown in Department Budget Request. The Department Budget Request includes time payment for equipment as operating expense rather than capital outlay, as reflected herein.

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## ADP BUDGET ANALYSIS

## AGENCY DEPARTMENT OF HIGHWAYS

	1978-79 FTE/ACTUAL	\$	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	1980-81 FTE/RECOMMEND	\$
PERSONAL SERVICES	44.00	938,945	41.00	988,115	41.00	988,115	41.00	988,115
OPERATING EXPENSE		917,578		963,690		994,000		994,000
OPERATING EXPENSE OTHER								
<b>EQUIPMENT</b>								
EQUIPMENT RENTAL		38,312		35,222		31,440		31,440
EQUIPMENT C/O		91,320		251,877		142,710		142,710
<b>EQUIPMENT SUB-TOTAL</b>		130,132		287,099		174,150		174,150
<b>TOTAL</b>	44.00	1,986,655	41.00	2,238,904	41.00	2,156,265	41.00	2,156,265
GENERAL FUND								
CASH	44.00	1,986,655	41.00	2,238,904	41.00	2,156,265	41.00	2,156,265
FEDERAL								

## COMMENTS:

1. PERSONAL SERVICES:  
This request does not include approximately \$150,000 for 6 positions with data processing titles located in divisions other than the Management Systems Division, such as Transportation Planning and Internal Audit.
2. OPERATING EXPENSE:  
This is a continuation budget reflecting inflation increases and/or billing increases from the University of Colorado and the General Government Computer Center based on current trends. It includes \$825,000 for C.U. and \$30,000 for G.G.C.C. The latter is about double what was anticipated, since the minicomputer has not replaced processing at G.G.C.C. as much as originally believed.
3. EQUIPMENT:  
This request includes almost \$20,000 to exercise the purchase option on the HP3000 minicomputer in December, 1980 at the end of the 3 year lease period, as planned. It also includes \$75,000 for additional terminal equipment, including printers, for the HP3000 network. This is the final stage of implementation of the Financial Management System, putting the remote districts on line, beginning in March, 1980. The FY 1979-80 estimate includes the purchased upgrade of the HP3000 needed to support full operation, and the first terminals.

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## ADP BUDGET ANALYSIS

## AGENCY DEPARTMENT OF INSTITUTIONS

	1978-79 FTE/ACTUAL \$	1979-80 FTE/ESTIMATE \$	1980-81 FTE/REQUEST \$	1980-81 FTE/RECOMMEND \$
PERSONAL SERVICES	38.50	722.027	35.00	751.715
OPERATING EXPENSE		37.268	679.233	35.00
OPERATING EXPENSE OTHER			41.856	70.852
 EQUIPMENT -				
EQUIPMENT RENTAL		87,439	89,098	66,425
EQUIPMENT C/O		100,231	103,962	104,942
 EQUIPMENT SUB-TOTAL		187,670	193,060	171,367
 TOTAL	38.50	946,965	35.30	916,199
			35.00	993,934
 GENERAL FUND	31.90	810,453	31.90	929,371
CASH	6.60	136,512	3.10	65,628
FEDERAL			3.10	64,563

## COMMENTS:

## 1980-81

The computer center at DOI ADP Center will be upgraded during the Fiscal Year 1979-80 and will be operational for the full Fiscal Year 1980-81.

The increase in Operating Expense shows a marked increase mainly caused by the inclusion of \$21,222. for operating software for the Univac 1100/61. Software for the replaced computer was furnished at no charge.

The decrease in Equipment is a result of the new computer cost.  
The Center will continue to support the Department of Corrections for maintenance and operation of their Administrative Systems.

Personal Services 1.1 FTE (.3 Systems Analyst  
.3 Programmer  
.5 Data Entry)

Operating Expense  
\$21,695.  
\$ 6,200.

Total Department of Corrections  
\$27,885.

## 1979-80

The Personal Services amount shown above does not include a required \$65,259 supplemental that is necessary to support the 35.0 FTE.

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## ADP BUDGET ANALYSIS

## AGENCY DIVISION OF EMPLOYMENT

	1978-79 FTE/ACTUAL	1979-80 FTE/ESTIMATE	1980-81 FTE/REQUEST	1980-81 FTE/RECOMMEND
PERSONAL SERVICES				
OPERATING EXPENSE	76.00	1,180,070	74.00	1,402,181
OPERATING EXPENSE OTHER		355,349		367,796
<b>EQUIPMENT</b>				
EQUIPMENT RENTAL		457,563	456,156	594,180
EQUIPMENT C/O		603,730	1,193,108	663,712
<b>EQUIPMENT SUB-TOTAL</b>		1,061,233	1,649,264	1,257,892
<b>TOTAL</b>		76.00	2,596,652	74.00
			3,419,241	78.00
			3,223,966	78.00
			3,223,966	3,223,966

## GENERAL FUND

CASH	74.00	74.00	83,676	286,337
FEDERAL	2,522,484	74.00	3,335,565	78.00
			2,937,625	78.00

## COMMENTS:

The 1980-81 Budget Request and Recommendations, reflect a decrease of \$397,936 (This figure includes \$202,661 which is the difference between the estimated cash for 1979-80, and what the Division of State Compensation Insurance Fund owes), from the 1979-80 estimate as follows:

## RECOMMENDATIONS

PERSONAL SERVICES	Increases/Decreases	OPERATING EXPENSE	Increases/Decreases
4 FTE Programmers	\$ 81,358	Other Contracts	\$ 6,500
Salary and Fringe Benefits	32,294	Building Rental	8,375
<b>Sub-Total</b>	<b>\$113,632</b>	Paper Card Supplies	22
		Computer Consumables	19,293
		Other	16,580
		Other Expenses	16,041
		In-State Travel	15,704
		Out-State Travel	(700)
		<b>Sub-Total</b>	<b>\$82,415</b>

EQUIPMENT	Increase	Decrease	Maintainance	SUMMARY:
Mass Storage Units	\$139,700	\$ 19,692	\$ 47,218	Personal Services \$ 113,682
Other	(59,187)			Operating Expense 82,415
Minicomputers				Equipment (\$391,372)
Modems, Controllers	(310,755)	78,368	126	<b>Sub-Total</b> (\$195,275)
Keypunch/Verifiers				
Optical Scanner	(31,759)	(8,919)		St. Comp. Ins. Fund Owes (\$202,661)
Keystape/Keydisk				<b>TOTAL</b> (\$397,936)
Aux. Disk Storage	33,920			
Remote Job Entry	1,784	(496,372)	(49,766)	
Direct Entry Ter.				
Computer Accessories		248,638		Sub-Total
Other Equipment	7,750			State Comp. Ins. Fund Owes (\$195,275)
Overtime On-call Maint			<b>(11,360)</b>	<b>TOTAL</b> (\$397,936)
<b>Equipment Sub-Total</b>	<b>\$ 82,297</b>	<b>\$ (529,356)</b>	<b>\$ 55,727</b>	<b>TOTAL</b> (\$391,372)

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## ADP BUDGET ANALYSIS

	AGENCY	DIVISION OF LABOR		
	1978-79 FTE/ACTUAL \$	1978-80 FTE/ESTIMATE \$	1980-81 FTE/REQUEST \$	FTE/RECOMMEND \$
PERSONAL SERVICES	5.20	89,430	6.00	102,192
OPERATING EXPENSE		42,426		52,419
OPERATING EXPENSE OTHER				131,967
 EQUIPMENT -				
EQUIPMENT RENTAL				10,000
EQUIPMENT C/O				
 EQUIPMENT SUB-TOTAL				
		8,356	10,000	17,752
				17,752
	5.20	140,214	6.00	164,611
 TOTAL				7.00
				269,647
				7.00
 GENERAL FUND				
CASH	5.20	140,214	6.00	164,611
FEDERAL				7.00
				269,647
				7.00
				248,659

## COMMENTS:

1. The difference in Personal Services, had mainly to do with 1.0 FTE coding clerk vacancy savings. (position was filled). Also, inflationary increase for salaries.
2. The difference between the requested and recommended Operating Expense, had to do with what Division of Labor estimated for developmental staff at GGCC 4000 hours x \$20 per hour = \$80,000, and what the GGCC requested in support of this systems/application (2.0 FTE at \$37,960).

## RECOMMENDATIONS:

Support is recommended for \$83,348 as follows:

## PERSONAL SERVICES:

1.0 FTE coding clerk  
Inflationary Increase

OPERATING EXPENSE:  
2.0 FTE Programmer/Analyst for development of  
workers compensation claim system at GGCC  
\$57,960

## EQUIPMENT:

Intelligent terminal to enter, edit and  
query large volumes of data at GGCC. LEASE  
7,752

TOTAL \$83,448

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## ADP BUDGET ANALYSIS

## AGENCY CCMP. INSURANCE FUND

	1978-79 FTE/ACTUAL	\$	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	FTE/RECOMMEND	\$
PERSONAL SERVICES	18.40	248,000	20.40	329,750	21.30	310,602	21.30	310,602
OPERATING EXPENSE		129,140		136,980		68,600		68,600
OPERATING EXPENSE OTHER								
<b>EQUIPMENT -</b>								
EQUIPMENT RENTAL		20,078		24,180		24,180		24,180
EQUIPMENT C/O		1,460		80,300		11,704		11,704
<b>EQUIPMENT SUB-TOTAL</b>		21,538		104,180		35,884		35,884
<b>TOTAL</b>	18.40	398,678	20.40	570,910	21.30	415,086	21.30	415,086
 GENERAL FUND								
CASH								
FEDERAL								
	18.40	398,678	20.40	570,910	21.30	415,086	21.30	415,086

## COMMENTS:

The 1980-81 Budget Request and Recommendations reflects a decrease of \$155,824 as follows:

- Includes \$77,169 appropriated for computing support at the Division of Employment Computer Center. The actual computer billing charges amount to \$431,211. When this difference is verified, a supplemental appropriation will be requested.
- These figures do not include computer billing charges at the Division of Employment which we estimated to be in excess of \$500,000 in the request budget year. As soon as the computer billing charges are verified, appropriate measures will be taken to accurately reflect the required amounts.

## RECOMMENDATIONS

PERSONAL SERVICES (Vacancy savings and pots/benefits reduction) Increases/Decreases  
\$ (19,148)

OPERATING EXPENSE (Comment (2) above explains) Increases/Decreases  
\$ ( 68,380)

EQUIPMENT Increases/Decreases  
\$ ( 68,296)

Rental Capital Outlay (Reduction reflects purchased terminal costs) Increases/Decreases  
\$ (155,824)

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## ADP BUDGET ANALYSIS

## AGENCY DEPARTMENT OF LAW

	1978-79 FTE/ACTUAL	\$	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	FTE/RECOMMEND \$
PERSONAL SERVICES	10.05	157,727	13.00	191,069	14.95	225,093	225,093 *
OPERATING EXPENSE		37,078		19,660		26,500	26,500 *
OPERATING EXPENSE OTHER							
<b>EQUIPMENT -</b>							
EQUIPMENT RENTAL		26,543		26,531		72,293	72,293 *
EQUIPMENT C/O							
<b>EQUIPMENT SUB-TOTAL</b>		26,543		28,531		72,293	72,293 *
<b>TOTAL</b>	<b>10.05</b>	<b>221,348</b>	<b>13.00</b>	<b>239,260</b>	<b>14.95</b>	<b>323,886</b>	<b>323,886 *</b>
<b>GENERAL FUND</b>							
CASH							
FEDERAL							

## COMMENTS:

The Division of ADP recognizes the Department of Law's need for text editing capability. Currently this is being supplied through the ALTER system operating on the GCCC computer, however the Department of Law would like to supplement this with an in-house IBM 8100 computer system. The IBM 8100 computer would be used as word processing, backup to the GCCC, and for the off-loading of systems from the Judicial computer. (In reality, the off-loading would be from the GCCC due to the fact that Judicial supported systems are now being converted to operate on the GCCC). Effectively this would establish a standalone computer system with batch communication capability to the GCCC.

Requested funds reflect the increased expenditures needed to acquire equipment for this additional capability by not only procuring the equipment but employing nearly 2.0 FTE over the FY 1979-80 estimated FTE. The FTE increase is needed whether or not the equipment is actually procured.

The Division of ADP has no written documentation to support this philosophy nor has it been presented with cost justifications, feasibility studies, or proposed alternatives to solve the problem. It is therefore recommended that funds be contingent on:

- A complete departmental data processing plan being submitted to the Division of ADP as outlined in the State ADP Master Plan. A plan has not been received since 1974.
- Receipt by the Division of ADP of justification for personnel increase over the 1979-80 recommended level.
- Receipt by the Division of ADP of justification for the IBM 8100 computer and requested additional word processing terminals.
- Development of a fully operational software interface between the ALTER system (proprietary) and the requested IBM 8100. This interface is not now available nor is it designed.

\* If the above contingencies cannot be met, the recommended funds and FTE will be:

FTE 13.30			
Personal Service	\$206,126		
Operating Expense	14,800		
Equip. Rental	28,531		
<b>TOTAL</b>	<b>\$249,457</b>		

The Department of Law has, to a large degree, based its request for the computer system on the fact that for 200 hours each year terminal operators cannot access GCCC computer system. Most of this lost time and service is attributed to fluctuations or outages of electrical service supplied by Public Service Company of Colorado. The GCCC has requested capital construction funds to provide for a Uninterruptible Power Supply (UPS) system to help eliminate the lost time and services for all GCCC users.

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## ADP BUDGET ANALYSIS

## AGENCY DEPT. OF LOC. AFF. CBI

	1978-79 FTE/ACTUAL	\$	FTE/ESTIMATE	\$	FTE/REQUEST	\$	FTE/RECOMMEND	\$
<b>PERSOANL SERVICES</b>								
OPERATING EXPENSE	16.00	354,724	19.00	443,821	20.00	457,011	20.00	457,011
OPERATING EXPENSE OTHER		24,818		37,008		24,048		26,860
<b>EQUIPMENT -</b>								
EQUIPMENT RENTAL	534,659		1,030,116		1,108,112		1,115,234	
EQUIPMENT C/O	235,642		134,309		54,120		54,120	
EQUIPMENT SUB-TOTAL	770,301		1,164,425		1,162,232		1,169,354	
<b>TOTAL</b>	<b>16.00</b>	<b>1,149,843</b>	<b>19.00</b>	<b>1,645,254</b>	<b>20.00</b>	<b>1,643,291</b>	<b>20.00</b>	<b>1,653,225</b>
GENERAL FUND	13.00	876,923	13.00	955,336	13.00	1,060,775	13.00	1,070,709
CASH	3.00	272,920	6.03	689,918	7.00	582,516	7.00	582,516
FEDERAL								
COMMENTS:								

PERSONAL SERVICES:

Personal Services consist of the following continuing positions: 13 FTE for CBI, 4.0 FTE for Corrections, 2.0 FTE for Highways, totalling 19.0 continuing FTE. One new position (1 FTE or \$19,119) is requested for a computer operator in order to support the increased batch workloads associated with Property Tax and Planning.

EQUIPMENT RENTAL & MAINTENANCE:

An additional \$23,971 increase in maintenance cost has been incurred from the installation of 2 tape drives, 2 disk storage units and 13 additional terminals. All of this equipment was purchased; the tape and disk units were purchased with funds from the sale of some of the 48BIT computer equipment and the 13 terminals purchased from a grant from the Law Enforcement Assistance Administration (LEAA).

Also, a \$33,000 increase for communication circuits is requested to provide data circuit capacity for the increased data volume plus the new terminals mentioned above, plus the transfer of correctional terminals to the CBI network. The current network is totally overloaded.

In addition, a \$14,460 increase is requested for maintenance of 3 additional disk storage units, plus an additional disk control unit. These disk units will support storage requirements for the Division of Property Tax and Planning.

EQUIPMENT CAPITAL OUTLAY

The additional disk storage units for Divisions of Property Tax and Planning are being purchased over a seven year period. An additional \$54,120 is requested for the annual payment for these disk units.

It should be mentioned that the Department of Local Affairs accidentally left out \$2,812 operating expense and \$7,122 equipment rental cost. These amounts have been added to the 1980-81 ADP recommendation.

SOURCE OF FUNDS:

Source of funds from other than the State General Fund is cash income, these are obtained from the following sources:

Corrections \$117,000  
Highway Safety Funds (STEP) \$124,000  
Highway Users Tax (CSP) \$341,516

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## ADP BUDGET ANALYSIS

## AGENCY DEPT. OF LCC. AFF. ADMIN.

	1978-79		1979-80		1980-81			
	FTE/ACTUAL	\$	FTE/ESTIMATE	\$	FTE/REQUEST	\$	FTE/RECOMMEND \$	
PERSONAL SERVICES	2.80	38,479	3.80	80,248	4.00	84,759	4.00	84,759
OPERATING EXPENSE		92,906		43,710		51,042		39,622
OPERATING EXPENSE OTHER								
EQUIPMENT -								
EQUIPMENT RENTAL								
EQUIPMENT C/O								
EQUIPMENT SUB-TOTAL	5.152		71,723		66,224		66,224	
TOTAL	2.80	136,537	3.80	195,681	4.00	202,025	4.00	190,605
GENERAL FUND	2.10	127,549	1.90	159,621	3.50	192,466	3.50	181,646
CASH								
FEDERAL	0.70	8,988	1.90	36,060	0.50	9,559	0.50	9,559

## COMMENTS:

PERSONAL SERVICES:

- o Request is for on-going support plus 1.0. FTE Systems Analyst "B" to support the Census Mapping application for the Division of Planning. Position existed in 79-80 however it was funded under an EDA Grant.
- o Funding for Systems Analyst "B" for the Division of Criminal Justice is requested on a 50% General Fund. (79-80 Funding was 90% Federal/10% General Fund).
- o The Division of ADP supports both on-going and new Personal Services requests as they are in concert with the Department of Local Affairs ADP plan published November, 1979.

OPERATING EXPENSE:

- o Request supports the Division of Property Taxation operational systems maintained at the General Government Computer Center for systems analysis and programming. Request for \$34,776. Division of ADP supports this request.
- o The Division of ADP does not recommend the request for \$4,000 for continued support of an operational system for the Division of Criminal Justice for computer provided by an outside service agency. This operation system should be returned and run on computer at the Administration of Justice Computer Center.
- o The Division of ADP does not support the request of the Division of Energy and Mineral Impact for data processing supplies of \$7,450. All support for DEMI should come from the Administration of Justice Computer Center.

EQUIPMENT:

- o The Division of ADP supports the total request. The increase in expenditure is a result of an appropriation funded as a result of Senate Bill 525 Footnote 117 passed by the 1979 General Assembly to create automated census mapping system. Request is to continue the lease purchase of a remote batch processor terminal, magnetic tape and disk, printer and CRT.

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## ADP BUDGET ANALYSIS

	AGENCY	DEPT. OF MILITARY AFFAIRS	
	1978-79 FTE/ACTUAL \$	1979-80 FTE/ESTIMATE \$	1980-81 FTE/REJECT \$
PERSONAL SERVICES			
OPERATING EXPENSE			
OPERATING EXPENSE OTHER			
EQUIPMENT -			
EQUIPMENT RENTAL			
EQUIPMENT C/O			
EQUIPMENT SUB-TOTAL	1,351 1,329		2,316
TOTAL	2,680		2,316
GENERAL FUND			
CASH			
FEDERAL			
COMMENTS:			

Communication facilities supplied by CLETA.

1979 Estimate includes:

- 1 Ramtek terminal lease for 7 mo. @ \$82 and \$29 maint. per mo.
- 1 Texas Instruments printer lease for 7 mo. @ \$54 and \$28 maint. per mo.
- Purchase of modems, interfaces, switches and cables.

1980 Request is the 12 mo. continuation of leased equipment.

Equipment is being acquired by the Division of Disaster Emergency Services. Communication link will be established with the Administration of Justice Computer Center so that emergency situations can be communicated to and from local governments, law enforcement agencies, and federal agencies in a very short period of time. Mobile units may be requested sometime in the future. Statutory responsibility is provided in CRS 28-2.

## ADP BUDGET ANALYSIS

## AGENCY DEPT. OF NAT. RES. ADMIN.

	1978-79 FTE/ACTUAL	\$	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	1980-81 FTE/RECOMMEND	\$
PERSONAL SERVICES	9.00	180,648	9.00	179,949	11.00	220,408	11.00	220,408
OPERATING EXPENSE		45,111		35,061		11,142		41,142
OPERATING EXPENSE OTHER								
<b>EQUIPMENT -</b>								
EQUIPMENT RENTAL	10,291		11,372		12,642		12,642	
EQUIPMENT C/O	8,837		17,760		19,228		19,228	
<b>EQUIPMENT SUB-TOTAL</b>	<b>19,128</b>		<b>29,132</b>		<b>31,870</b>		<b>31,670</b>	
<b>TOTAL</b>	<b>9.00</b>	<b>244,887</b>	<b>9.00</b>	<b>244,142</b>	<b>11.00</b>	<b>263,420</b>	<b>11.00</b>	<b>293,420</b>
GENERAL FUND	9.00	10,757	9.00	16,076	11.00	39,250	11.00	39,250
CASH		157,145		153,631		148,042		178,042
FEDERAL		76,985		74,435		76,128		76,128

## COMMENTS:

## PERSONAL SERVICES:

The Division of ADP supports the 2.0 additional FTE for the data gathering, design, development and implementation of an Energy Management Data System. The additional FTE requested are necessary to provide the data processing support and expertise required for the successful implementation of the Colorado Energy Resources Development Plan and Methodology already initiated by the Department of Natural Resources.

Additionally, if Colorado is to control its destiny in energy development, make meaningful input in federal energy development decisions and mitigate potential adverse social and economic effects of such development on its citizens, a system of monitoring, evaluating and tracking current and impending major developments must be instituted.

To accomplish these functions, the implementation of an Energy Management Data System is strongly recommended.

## OPERATING EXPENSE:

This request is for continued funding at the present level of support.

## EQUIPMENT:

This request is for continued funding at the present level of support. No additional acquisitions are planned for FY 80-81.

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## ADP BUDGET ANALYSIS

	AGENCY	DEPT. OF NAT. RES. WATER		FTE/REQUEST \$	FTE/RECOMMEND \$
		1978-79	1979-80		
	FTE/ACTUAL \$		FTE/ESTIMATE \$		
PERSONAL SERVICES	4.00	24,839	5.00	63,596	5.00
OPERATING EXPENSE		82,157		40,987	
OPERATING EXPENSE OTHER					50,066
EQUIPMENT -					
EQUIPMENT RENTAL		18,275		19,200	19,200
EQUIPMENT C/D				13,763	1,500
EQUIPMENT SUB-TOTAL		18,275		32,963	
TOTAL	4.00	125,871	5.00	137,546	5.00
GENERAL FUND	4.00	95,000	5.00	99,033	5.00
CASH		30,871		38,513	
FEDERAL					38,513

## COMMENTS:

To support current programs and a continuation of current funding levels.

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## ADP BUDGET ANALYSIS

		AGENCY		DEPARTMENT OF PERSONNEL	
		1978-79 FTE/ACTUAL	\$	1979-80 FTE/ESTIMATE	\$
				FTE/REQUEST	\$
PERSONAL SERVICES					
OPERATING EXPENSE	1.00	29,062	1.03	29,238	1.00
OPERATING EXPENSE OTHER		83,474		130,660	
EQUIPMENT -					
EQUIPMENT RENTAL					
EQUIPMENT C/O		12,566		15,585	
EQUIPMENT SUB-TOTAL		12,566		15,585	
TOTAL	1.00	125,102	1.00	175,483	1.00
GENERAL FUND					
CASH	1.00	125,1C2	1.00	175,483	1.00
FEDERAL					
COMMENTS:					

This request is for continuation of the present level of support in the continued development of on-line systems. The increasing expenditures for equipment are offset by increased productivity and decreases of batch operating costs.

Services to be provided by the General Government Computer Center are estimated at \$119,449 plus pots:

Systems Development  
3.8 FTE \$110,124  
Data Entry  
\$9,325

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## ADP BUDGET ANALYSIS

## AGENCY DEPT. OF PLANNING &amp; BUDGET

	1978-79 FTE/ACTUAL \$	1979-80 FTE/ESTIMATE \$	1980-81 FTE/REJECT \$	1980-81 FTE/RECOMMEND \$
PERSONAL SERVICES				
OPERATING EXPENSE				
OPERATING EXPENSE OTHER				
EQUIPMENT -				
EQUIPMENT RENTAL				
EQUIPMENT C/O				
EQUIPMENT SUB-TOTAL				
TOTAL	28,642	30,650	38,760	38,760
GENERAL FUND				
CASH				
FEDERAL				
COMMENTS:				
<u>OPERATING EXPENSE:</u>				

This request is for continued funding at the present level of support.

## ADP BUDGET ANALYSIS

## AGENCY DEPT. OF REGULATORY AGENCIES

	1978-79 FTE/ACTUAL \$	1979-80 FTE/ESTIMATE \$	1980-81 FTE/REQUEST \$	1980-81 FTE/RECOMMEND \$
PERSONAL SERVICES	1.80	36,551	7.50	174,891
OPERATING EXPENSE				162,934
OPERATING EXPENSE OTHER				159,873
 EQUIPMENT -				
EQUIPMENT RENTAL		11,600	17,418	29,396
EQUIPMENT C/O			550	440
 EQUIPMENT SUB-TOTAL		11,600	17,968	29,836
 TOTAL	1.80	197,755	7.50	355,793
			8.00	380,921
				8,00
				373,665

## COMMENTS:

PERSONAL SERVICES:

Supported at on-going level.

OPERATING EXPENSE:

Request for data entry support from General Government Computer Center is \$32,556. Request is supported at \$32,000.

EQUIPMENT:

1. The PUC has requested an additional 3 CRT terminals (6.2:6) to enhance and expand the operational system supported currently by one controller (with CRT) and 1 CRT terminal (\$7,104).

Total \$7,104 on-going plus \$6,296 new equals \$13,400.

The Division of ADP supports the addition of 3 CRT terminals and the currently installed equipment. However, the current equipment should be replaced with a lower cost, same capacity controller and equipment (\$3,552) and add 3 terminals (\$3,148).

Total \$3,552 on-going plus \$3,148 new equals \$6,700.

Requested	\$13,400
Recommended	<u>6,700</u>
Reduction of Request	<u>\$ 6,700</u>

2. The request for 6 CRT terminals to be installed to support the Uniform Licensing System for 6 months (install January, 1981) is supported.

Total Request - \$2,276

(6 terminals @451.00/month for 6 month - \$1,836  
installation and cables - \$440)

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## ADP BUDGET ANALYSIS

	AGENCY	DEPARTMENT OF REVENUE			1980-81 FTE/RECOMMEND \$
		1978-79 FTE/ACTUAL	\$	1979-80 FTE/ESTIMATE	
PERSONAL SERVICES					193-0-81
OPERATING EXPENSE					
OPERATING EXPENSE OTHER		218.18	2,943,913	228.42	3,245,544
		250,459		265,661	319,899
EQUIPMENT					
EQUIPMENT RENTAL		454,982		557,222	584,246
EQUIPMENT C/O		322,864		59,524	420,000
EQUIPMENT SUB-TOTAL		777,846		616,746	1,004,246
TOTAL		218.18	3,972,218	228.42	4,127,951
				232.42	4,589,057
GENERAL FUND		83.32	1,516,990	89.09	1,592,344
CASH		134.86	2,455,228	139.33	2,535,607
FEDERAL				139.33	2,531,441

## COMMENTS:

## I. PERSONAL SERVICES:

A. The increase of 7.0 F.T.E. in the request over the 1979-80 appropriation is for:

1. Three data entry positions are requested to support the cash management. The main purpose of these positions is to assist in the acceleration of bank deposits resulting in savings to the State (3.0 F.T.E. at \$28,320).
2. Three data entry positions are requested to support the growing increase in workload (3.0 F.T.E. at \$27,004).
3. One software programmer is requested to assist in bringing their computer operations to the State of the Art. The Department needs to change to a new computer operating system and implement data base concepts for file control. The additional current on-line computer programs need to be changed to improve computer throughput and terminal response time. (See ADP Master Plan, Volume III, January 1980; entitled Revenue Data Processing Task Force Study). (1.0 F.T.E. at \$18,215).

## II. EQUIPMENT OUTLAY:

1. The request of \$420,000 is to upgrade Revenue's present computer to a large scale computer. This request is in accordance with the ADP Master Plan, Volume III, January 1980; entitled Revenue Data Processing Task Force Study and should be contingent on the implementation of the recommendations in the study.

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## ADP BUDGET ANALYSIS

		AGENCY		DEPT. OF SOCIAL SERVICES			
		1978-79		1979-80		1980-81	
		FTE ACTUAL	\$	FTE/ESTIMATE	\$	FTE/REQUEST	\$
PERSONAL SERVICES	28.60	615,151	32.00	699,651	32.00	776,556	32.00
OPERATING EXPENSE		247,138		199,747		379,865	
OPERATING EXPENSE OTHER							776,556
EQUIPMENT -							379,865
EQUIPMENT RENTAL		100,019		109,800		132,091	
EQUIPMENT C/O							132,091
EQUIPMENT SUB-TOTAL		100,019		109,800		132,091	
TOTAL	28.60	962,308	32.00	1,009,198	32.00	1,288,512	32.00
							1,288,512
GENERAL FUND	17.50	589,495	21.80	686,255	15.70	633,280	15.70
CASH	0.40	12,500	2.50	80,736			633,280
FEDERAL	10.70	360,323	7.70	242,207	16.30	655,232	16.30
							655,232

## COMMENTS:

1. Personal Services is requested at the present level of support.
2. Operating Expense reflects the growth in data creation costs from \$233,514 for FY 1978-79 to the \$364,522 requested for 1980-81. This is based on \$1.20 per thousand keystrokes, the rate being paid at the time the budget was prepared. The State has awarded a keypunch contract at \$1.20/1,000 which is expected to increase substantially next year, or may even be canceled if contractors refuse work. Some vendors who have traditionally provided services to the State will accept work only at rates above \$1.20 per thousand. Based on the current award, \$267,316 is needed for data entry services alone in FY 1980-81, and a total of \$282,659 for operating expense. The entire request is supported, however, due to the unstable market and the critical nature of the work to be done.
3. Equipment Rental reflects an anticipated jump of inflation plus an additional 5%.

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The Division of ADP supports the addition of 1.0 FTE programmer position. This position is necessary for public access mainframe support, system revisions, and new development in the Uniform Commercial Code and Notaries Public area.

ORGANIC EYEDROPS

**OPERATING EXPENSE:** The reduction by the Division of ADP of \$45,326 includes \$27,200 requested for maintenance support of the UCC and Notaries Public Systems. This will not be needed if the 1.0 FTE programmer is funded. If it is not funded the \$27,200 should be appropriated. Also included in the reduction is \$18,000 for computer run time requested to support the Elections area for the Master Voter Registration System. This should be covered in the GGCC budget.

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## ADP BUDGET ANALYSIS

## AGENCY DEPARTMENT OF TREASURY

	1978-79 FTE/ACTUAL	\$	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	1980-81 FTE/RECOMMEND \$
PERSONAL SERVICES	0.50	6,278	0.50	6,021	0.50	6,324	0.50
OPERATING EXPENSE		23,510		31,594		26,443	
OPERATING EXPENSE OTHER							24,173
 EQUIPMENT -							
EQUIPMENT RENTAL		2,743		2,698		492	1,140
EQUIPMENT C/O		1,717				17,000	17,000
 EQUIPMENT SUB-TOTAL		4,460		2,698		17,492	18,140
 TOTAL	0.50	34,248	0.50	40,313	0.50	50,259	0.50
 GENERAL FUND	0.50	34,248	0.50	40,313	0.50	50,259	0.50
CASH							49,637
FEDERAL							

## COMMENTS:

PERSONAL SERVICES:OPERATING EXPENSE:

- o Level funding to support ongoing activity.
- o Estimate year includes \$11,000 for lease time at Colorado University, \$7,200 for service contract, non-state agency (Custodial System at Boettcher), \$394 for supplies and \$13,000 for GGC.
- o Request year includes \$7,700 for partial year lease at Colorado University and service contract, non-state agency, \$323 for supplies and \$17,920 for GGC.
- o Recommendation reduces GGC amount to \$15,650.

EQUIPMENT RENTAL:

- o Recommendation increased to cover added maintenance for new equipment.
- o Request is for purchase of a mini-computer with costs to be shared with the Division of Planning and Budgeting.
- o Recommendation: Purchase additional disk storage and utilize existing State owned computing resources through time sharing.

The Capital Outlay first year costs would be approximately the same for purchase of new computing resources or time sharing of existing resources, however, succeeding years costs would be substantially reduced through time sharing.

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ADP BUDGET ANALYSIS		INSTITUTION		ADAMS STATE COLLEGE		NUMBER		270620 SCHEDULE 2	
		1978-79		1979-80		1980-81		1980-81	
		FTE/ACTUAL	\$	FTE/ESTIMATE	\$	FTE/REQUEST	\$	FTE/RECOMMEND	\$
PERSONAL SERVICES	6.00	84.147	6.00	94.057	7.00	115.092	7.00	115.092	7.00
OPERATING EXPENSE	6.257		10.159			12.813		12.813	
OPERATING EXPENSE OTHER									
EQUIPMENT -									44.374
EQUIPMENT RENTAL		36.934		40.340		47.351		44.374	
EQUIPMENT C/O									44.374
EQUIPMENT SUB-TOTAL		36.934		40.340		47.351		44.374	
TOTAL	6.00	127.638	6.00	144.556	7.00	175.256	7.00	172.279	7.00
									172.279
GENERAL FUND	5.95	119.484	5.90	130.048	6.90	163.256	7.00	165.279	
CASH	0.10	2.431	0.10	6.000	0.10	7.000		7.000	
FEDERAL									
SALARY ACT		4.741		8.508					
OTHER		9.82							
COMMENTS:	Support is recommended for the 1980-81 budget request as submitted and as follows:								
RECOMMENDATIONS	<u>Increases/Decreases</u>								
PERSONAL SERVICES									
1 FTE Programer	\$18,575								
Professional Staff Increases	\$1,405								
Classified Staff Increases	966								
Hourly Rate Increases	88								
Sub-Total:	\$21,035								
OPERATING EXPENSES									
Travel	\$ 165								
Operating Supplies	\$ 2,469								
Sub-Total:	\$ 2,654								
EQUIPMENT									
Rental/I/maintenance	\$ 4,034								
TOTAL	\$27,723								

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## ADP BUDGET ANALYSIS

## INSTITUTION ARAPAHOE CCMM. COLLEGE

	1978-79 FTE/ACTUAL \$	1979-80 FTE/ESTIMATE \$	1980-81 FTE/REQUEST \$	FTE/RECOMMEND \$	NUMBER 270715	SCHEDULE 2 1980-81 FTE/ADV. BOARD \$
PERSONAL SERVICES	5.70	85.718	6.00	99.695	8.50	145.000
OPERATING EXPENSE		4.622		8.222		9.260
OPERATING EXPENSE OTHER						9.260
<b>EQUIPMENT -</b>						
EQUIPMENT RENTAL		18.851	19.748	64.140		64.140
EQUIPMENT C/O		11.433	7.357			
<b>EQUIPMENT SUB-TOTAL</b>		30.284	27.105	64.140		64.140
<b>TOTAL</b>	5.70	120.624	6.00	135.022	8.50	218.400
					8.50	218.400
GENERAL FUND	4.90	99.818	6.00	119.771	8.50	218.400
CASH	0.80	5.869				
FEDERAL		3.504		7.894		
SALARY ACT		11.433		7.357		
OTHER						

## REQUEST YEAR OBJECTIVES AND JUSTIFICATION

A. Objective: Develop and implement a student data-base which will contain demographic data, financial aid, veterans, health, and other student oriented information. The system will include on-line file update and inquiry and be under control of a data base software package for fast comprehensive reporting.

Request: 1.0 Programmer  
2. CRT's (On-line Terminals)

Justification: Our present batch systems have many areas of duplication, both in the type of data and in the method or procedure of gathering the data. Our intent is to reduce the amount of duplication by combining several related files into one common system. The method of gathering data will change from hand-coded batch to on-line entry, and the reporting capability will be increased.

B. Objective: Implement an on-line registration system that will handle between 6000 and 7000 students and place them into 1000 various classes. This system should provide us with the capability to enroll students in any open class and to automatically access them for tuition and fees.

Request: .5 Programmer  
1 Terminal Printer

Justification: We continue to struggle with old programs and poor methods of dealing with students in the registration process. We lack timely information to help make sound decisions related to registration and classes; and also lack the flexibility to implement the decisions when they are made. This system will also establish a foundation to develop an accounts receivable system which would give us needed control of student tuition.

C. Objective: Although we are pleased with the IAI Accounting System, we plan to make better use of the information within the system by adding the capability to inquire on-line. Greater control and fiscal management will be available with on-line access to accounting information.

Request: .5 Programmer  
1 CRT (On-line Terminal)

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Justification: Control of the budget and purchasing process is very important to the institution. Often problems are discovered after it is too late to correct them, subsequently we have a need to provide our purchasing area with access to budget and vendor information and to provide summarized accounting information to various offices within the institution. With tight budgets we have a serious need for more efficient controls.

Note: The resident instruction request addresses the need for a mini-computer to replace ten-year old equipment. This mini-computer will also assist us in providing on-line registration by allowing us to share developed software on like equipment within the State Higher Education System.

Division of ADP Note: The Division of ADP supports the need for an instructional mini-computer to provide interactive instruction. While the previous note in the original institutional budget submission states that the resident instruction program addresses this need, this has modified its original submission reducing the instructional budget request and increasing the data processing request alike .5 FTE and \$43,500.

The following clarification is submitted as extracted from a December 20, 1979 letter from the institution.

This is to inform you of a minor change in the configuration of Arapahoe Community College's Budget Request for 1980-81. In that the modification reflects merely a re-allocation between budget request formats, no formal action will be necessary. The exact nature of the change and rationale behind it are as follows:

Growth in our Computer Science Program has been phenomenal. We have been unable to adequately equip the program with "state-of-the-art" equipment. Our funding request, however, was couched in Format 402 - Resident Instruction. This has caused problems in terms of the Division of ADP (Department of Administration) recommendation on Data Processing. Their recommendation relates to only Format 454 - Data Processing. Consequently, our request change will be a movement of the instructional computing request from the Resident Instruction Format to that of data processing. This change will also reconcile the recommendation (for data processing) of the Higher Education Computer Services Steering Committee with that of the DQA (Division of ADP). The total change amounts to .5 FTE and \$43,500.

## ADP BUDGET ANALYSIS

## INSTITUTION CCIC SCHOL OF MINES - STATE FUNDED

	1978-79 FTE/ACTUAL \$	1979-80 FTE/ESTIMATE \$	1980-81 FTE/REQUEST \$	FTE/RECOMMEND \$	1980-81 FTE/ADV. BOARD \$
PERSONAL SERVICES	15.10	287,575	17.20	374,922	19.60
OPERATING EXPENSE		40,600		31,700	36,145
OPERATING EXPENSE OTHER				4,380	48,380
EQUIPMENT -					
EQUIPMENT RENTAL		78,664		93,380	145,690
EQUIPMENT C/O		42,695		346,625	335,321
<b>EQUIPMENT SUB-TOTAL</b>	<b>121,159</b>	<b>440,505</b>	<b>481,011</b>		<b>481,011</b>
<b>TOTAL</b>	<b>15.10</b>	<b>449,334</b>	<b>17.20</b>	<b>851,507</b>	<b>19.60</b>
				1,013,807	1,004,625
					19.20
					1,004,625
GENERAL FUND	15.20	364,727	17.20	781,297	19.60
CASH		70,713		55,000	70,000
FEDERAL					
SALARY ACT		10,984		25,210	
OTHER	- 10	2,910			

## ESTIMATE YEAR (1979-80)

During FY 1979-80, the major expenditure of money and effort will be devoted to the installation of a replacement computer. Cost of the central system is \$1,140,203 to be financed over a period of five years beyond the current year at an annual cost of \$268,400. A new data communications system and terminals are also being installed. The primary objective during this period is to get the new hardware and software running reliably, thus relieving resource constraints for both academic and administrative users.

Also, during FY 1979-80 CDC CYBER 720 is being installed using grant funds donated to the Geophysics Department for seismic data analysis. Over a five year period, support of the seismic processing system will move from gift funds to research grant and contract funds.

## REQUEST YEAR OBJECTIVES AND JUSTIFICATIONS (1980-81)

## o OPERATIONS:

The primary objective is to operate the new computers in a fashion to permit instruction, administration, and research to make major improvements in their programs. The expanded hardware and software systems and the expanded terminal configuration will lead to major increases in hardware and software maintenance costs. Additional hardware maintenance costs for the equipment which will be in place before the end of 1979-80 are \$51,290. Software maintenance costs, which in the past have been negligible and have been included in supplies and expenses, will be \$20,380 per year with the new system. In addition, one software programmer is needed for support of the inherently more complex computer system as well as the increased complexity of applications in the various service areas.

## o USER SERVICES:

The second objective is to improve the User Services function in the Computing Center. This function is now supported entirely from other than data processing funds by a chief consultant and graduate assistants. One FTE exempt position is needed to be funded from the data processing budget. With increased quantity and complexity of our computer systems and the use made of them in instruction, we need to have much more professional advice available on a regular basis to faculty and students.

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0 **IMPLEMENTATION:**

The final objective is to improve the administrative data processing service by beginning to implement user-oriented administrative applications. The first to be implemented is a major improvement in the student records system. The most economical way to make the improvement is to purchase proprietary software at a cost of about \$28,000. Internal development of such a system would probably take two person years, costing nearly twice the purchase price, plus the resulting time delay. The student records system includes admissions, on-line registration, scheduling, and reporting. With the number of admissions applicants continuing to increase, the student body continuing to grow, and reporting requirements continuing to increase, client must be sought either with additional personnel or new and better methods of processing. Data processing technology can help meet the needs making possible greater productivity by the existing student services staff.

Major improvements in applications software are needed for instruction and research as well as for administration in order to realize maximum benefit from the expanded facility. Proprietary packages can most quickly meet many of these needs. State funds are not presently requested for instructional applications programs. Instead, outside grants will be sought by the academic departments which will benefit from the programs.

**THREE YEAR IMPACT OF 7 PERCENT BUDGETING**

The effects of a 7 percent budget for fiscal year 1980-81 would be disastrous for the Computing Center. Overall, it would appear that in the continuation of maintenance contracts alone there would be an approximate deficit of \$55,000. Compounded with other factors including increased utilization of the instructional resources, inflation, and general price escalation of paper goods, the overall deficit in operating capital would be approximately \$90,000.

The problem has many causes, each of these being discussed in the following text.

First, is the continuation of the current maintenance contracts covering all computing center equipment currently authorized by the Legislature for use in the instructional program at CSM. This equipment includes the following general categories:

Interactive terminal maintenance	\$13,000
Graphics plotter maintenance	1,300
Network communications system maintenance	3,000
Computer room environmental equipment maintenance	5,000
Computer system software maintenance	19,500
DECsystem-10/1 hardware maintenance	85,000
DECsystem-20/20 hardware maintenance	15,000
Laboratory micro- and mini- computer maintenance	15,000

The total of \$156,800 for the maintenance contracts of existing equipment alone exceeds the total 7 percent operating capital allowance by \$55,000 when the newly acquired HP-3000 III minicomputer used in the Basic Engineering department for the beginning computer instruction program is included.

All of the equipment in the above list is integrated into the instructional program of CSM in such a fashion that to try to suspend any portion of it would result in a negative impact on the education program at the School. No one portion of the list can be eliminated. Secondly, since the Legislature has seen and agreed with our justifications for how we use this equipment in our education program, it would seem inconsistent with all our goals to cut back from where we are now in providing an excellent instructional educational program at CSM.

With the newly authorized computing equipment at CSM, our program will be allowed to expand and the previously pent-up demand for the resources will be relieved. This does not, however, solve the problem of software facilities for use in the various mineral engineering departments. Our request of \$48,000 for such software, comprised of \$28,000 for administrative software to cope with the increased enrollment and reporting and \$20,000 for instructional software, will be all but wiped out by the 7 percent budget. We will only have enough remaining dollars to continue to do a remedial job of supplying the faculty with tools for use in the classroom and in the instructional program. The result of this cut can only be termed disastrous and prolong the need to use valuable faculty time in attempting to create educational tools and maintain them for the instructional program.

The supplies situation is indeed another matter. With 7 percent budgeting, we will not have any funds remaining after equipment maintenance needs are provided for. In fact, with a deficit of \$55,000 we will simply be adding to that deficit the funds needed to provide for supplies. Problems have currently been compounded in the supplies area by the shortages of magnetic media, paper, and card goods. This has resulted in increases to our existing supplies costs of about 15 percent. Adding in the increased utilization of computing resources due to the new equipment and the standard inflationary factors, our supplies situation is worse than expected. Projected supplies costs due to inflation were \$423,000. Now, with these other two factors, it appears that the figure is more like \$40,000 to \$55,000 depending on what happens in the next few months. Adding this cost with the already existing deficit increases it to approximately \$90,000.

The above figures do not include any provisions for travel, rental for data transmission to the computing network, and personnel costs. It appears that we would at least have constant dollars in these areas for the travel and data transmission areas. Although with inflation in the cost of travel and in telephone rates for data transmission, the increase in cost about \$1,500 would be negligible compared to the already apparent deficit of about \$90,000 in this budget.

In the area of personnel, we continue to do tasks with a staff that compares in scope of accomplishment with that of our larger university computer centers, but with about 1/10 the number of that of other computer centers. This problem is compounded with the increases in computing use on the campus and in the increased needs of the faculty in instructional computing. We are presently understaffed in the system group by 3 people and in the user services areas by 4 people. This would indicate that cuts in staff would not be possible in continuing to cope with the existing equipment in the computing center, let alone the user services needs which at this time remain unmet.

The Division of ADP supports the institutional request as submitted less .4 FTE hourly wages and \$0,182 of personal services dollars.  
Note: All of the above narrative applies to Schedule A - State Funded computing. Schedule B is totally funded from non-State sources.

## ADP BUDGET ANALYSIS

## INSTITUTION COLOR SCHOOL OF MINES - GEOPHYS-SEISMIC DEPT.

	1978-79 FTE/ACTUAL \$	1979-80 FTE/ESTIMATE \$	1980-81 FTE/REQUEST \$	1980-81 FTE/RECOMMEND \$	1980-81 FTE/ADV. BOARD \$
PERSONAL SERVICES					
OPERATING EXPENSE	2.70	71,871	3,00	80,661	3,00
OPERATING EXPENSE OTHER		17,000		19,300	
	266,735			44,580	
EQUIPMENT -					
EQUIPMENT RENTAL C/O		81,820		104,075	
	1,596,655			104,075	
EQUIPMENT SUB-TOTAL		1,678,475		104,075	
				104,075	
TOTAL	2.70	2,055,081	3,00	248,616	3,00
				248,616	

## GENERAL FUND

## CASH

## FEDERAL

## SALARY ACT

## OTHER

## ESTIMATE YEAR (1979-80)

## ADP MASTER PLAN

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## o OPERATIONS:

The primary objective is to operate the new computers in a fashion to permit instruction, administration, and research to make major improvements in their programs. The expanded hardware and software systems and the expanded terminal configuration will lead to major increases in hardware and software maintenance costs. Additional hardware maintenance costs for the equipment which will be in place before the end of 1979-80 are \$51,290. Software maintenance costs, which in the past have been negligible and have been included in supplies and expense, will be \$26,380 per year with the new system. In addition, one software programmer is needed for support of the inherently more complex computer system as well as the increased complexity of applications in the various service areas.

## o USER SERVICES:

The second objective is to improve the User Services function in the Computing Center. This function is now supported entirely from other than data processing funds by a chief consultant and graduate assistants. One FTE exempt position is needed to be funded from the data processing budget. With increased quantity and complexity of our computer systems and the use made of them in instruction, we need to have much more professional advice available on a regular basis to faculty and students.

ADP BUDGET ANALYSIS		INSTITUTION		COLORADO SCHOOL OF MINES		NUMBER		270300		SCHEDULE 2				
	FTE/ACTUAL	\$		FTE/ESTIMATE	\$		FTE/RE QUEST	\$		FTE/RECOMMEND	\$		FTE/ADV. BOARD	\$
PERSONAL SERVICES	15.10	287,575	19.90	446,793	22.60	526,932	22.20	517,750						
OPERATING EXPENSE		40,600		48,700		57,445		57,445						
OPERATING EXPENSE OTHER				291,115		92,960		92,960						
EQUIPMENT -														
EQUIPMENT RENTAL	78,664		175,700		249,765		249,765							
EQUIPMENT C/O	42,495		1,943,280		335,321		335,321							
EQUIPMENT SUB-TOTAL	121,159		2,118,980		585,086		585,086							
TOTAL	15.10	449,334	19.90	2,905,588	22.60	3,262,423	22.20	3,253,241						
GENERAL FUND	15.20	364,727	17.20	781,297	19.60	943,807	19.20	934,625						
CASH		70,713		45,000		70,000		70,000						
FEDERAL														
SALARY ACT		10,984		25,210										
OTHER	-10	2,910	2.70	2,C54,081	3.00	248,616	3.00	248,616						

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## ADP BUDGET ANALYSIS

## INSTITUTION CCLO STATE UNIV. - ACADEMIC CENTER

## NUMBER 270410 SCHEDULE A

	1978-79	1979-80	1980-81	1980-81	1980-81
	FTE/ACTUAL	FTE/ESTIMATE	FTE/REQUEST	FTE/RECOMMEND	FTE/BOARD \$
PERSO NAL SERVICES	26.20	471.804	24.50	498.475	504.186
OPERATING EXPENSE		97.071		121.008	129.437
OPERATING EXPENSE OTHER		133.164		37.346	81.000
EQUIPMENT -					
EQUIPMENT RENTAL		426.608		455.000	470.835
EQUIPMENT C/O					464.998
EQUIPMENT SUB-TOTAL		426.608	455.000	30.000	30.000
TOTAL	26.20	1,128.647	24.50	1,111.829	24.50
GENERAL FUND					494.998
CASH					
FEDERAL					
SALARY ACT					
OTHER					

## REQUEST YEAR OBJECTIVES AND JUSTIFICATION:

## SCHEDULES A AND B

## 1. Objective:

To fulfill the on-going responsibilities of the University Computer Center with personnel, other current expense, and travel budgets which permit professional and efficient operations.

## Request:

The request for on-going programs includes an increase for exempt staff compensation and an increase of 1.5% on the base cost of state classified personnel (in accordance with OSPB instructions). The increases requested for travel and other current expense to meet inflationary price change average 10.0%.

Altogether, the inflationary and prescribed increases to the program base will cost \$105,914 which is 5.5% of the present base cost. Details are shown in the accompanying 454 formats.

## Justification:

Salary increases for exempt staff are requested to maintain compensation levels commensurate with duties performed and comparable with salaries paid professionals in higher education, industry, and government with similar training, experience, and responsibility. Once again, the cost of consumable supplies will escalate by general inflation. Equipment maintenance is accomplished by contract with the equipment vendors; typically, the contract costs escalate to account for usual cost of living increases to the personnel involved.

## New Program Requests:

No additional funding is requested to support new programs. For the foreseeable future we plan to reprogram the available base to implement new forms of computing and to accomplish new approaches to solving major problems. Among the major problems to be dealt with are: the continued growth in requirements for the delivery of computing cycles and the continuing pressure to supply more interactive service.

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ADP BUDGET ANALYSIS		INSTITUTION		COLORADO STATE UNIV. - ADMINISTRATION		NUMBER		270410		SCHEDULE 8	
				1978-79		1979-80		1980-81		1980-81	
		FTE/ACTUAL \$		FTE/ESTIMATE \$		FTE/REQUEST \$		FTE/RECOMMEND \$		FTE/ADV. BOARD \$	
PERSONAL SERVICES	36.30	649,262	35.90	719,747	35.90	737,256	35.90	729,747	35.90	729,747	
OPERATING EXPENSE		53,330		59,351		63,525		63,525		63,525	
OPERATING EXPENSE OTHER											
EQUIPMENT - EQUIPMENT RENTAL		22,750		27,822		49,675		49,675		49,675	
EQUIPMENT C/O											
EQUIPMENT SUB-TOTAL		22,750		27,822		49,675		49,675		49,675	
TOTAL	36.30	725,322	35.90	806,920	35.90	850,456	35.90	842,947	35.90	842,947	
GENERAL FUND											
CASH											
FEDERAL											
SALARY ACT											
OTHER											

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## ADP BUDGET ANALYSIS INSTITUTION COLORADO STATE UNIV. - CASH CENTER

	1978-79 FTE/ACTUAL	\$	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	1980-81 FTE/RECOMMEND	\$	1980-81 FTE/ADV. BOARD	\$
PERSONAL SERVICES	14.80	298,449	14.80	311,251	14.40	337,642	14.80	356,947		
OPERATING EXPENSE		61,324		133,599				83,646		83,646
OPERATING EXPENSE OTHER		75,616						131,118		131,118
 EQUIPMENT -										
EQUIPMENT RENTAL										
EQUIPMENT C/O										
 EQUIPMENT SUB-TOTAL										
	387,842		387,842		325,352		387,842			
 TOTAL										
	14.80	823,233	14.80	832,692	14.40	877,758	14.80	959,553		

GENERAL FUND  
CASH  
FEDERAL  
SALARY ACT  
OTHER

## SCHEDULE C

The University did not include cash earnings or expense in its original budget submissions. Supplementary information was received from the University which created revisions in the request amounts, and included a "cash" Schedule C. The Division of ADP has projected a higher cash earning and expense figure than that submitted by the University, with the caveat that total expense will be offset by a like amount of cash income. Notwithstanding any total appropriations expenditure limit, if income is underearned, expenses should be reduced accordingly. The Division of ADP recommends that any shortages in income projections should not be supplanted with General Fund.

## ADP BUDGET ANALYSIS

## INSTITUTION COLOR STATE UNIV.

## NUMBER 270410 SCHEDULE 2

	1978-79 FTE/ACTUAL \$	1979-80 FTE/ESTIMATE \$	1980-81 FTE/REQUEST \$	1980-81 FTE/RECOMMEND \$	1980-81 FTE/ADV. BOARD \$
PERSONAL SERVICES	77.30	1,419,495	75.20	1,529,473	75.20
OPERATING EXPENSE		211,725		313,958	276,608
OPERATING EXPENSE OTHER		208,782		37,346	212,118
EQUIPMENT -					176,118
EQUIPMENT RENTAL		837,200		870,664	
EQUIPMENT C/D				845,862	902,515
EQUIPMENT SUB-TOTAL		637,200		670,664	30,000
<b>TOTAL</b>	<b>77.30</b>	<b>2,677,202</b>	<b>75.20</b>	<b>2,751,441</b>	<b>875,862</b>
					932,515
GENERAL FUND	62.50	1,699,131	60.40	1,834,439	60.40
CASH	14.40	823,233	14.80	832,692	14.80
FEDERAL		75,873		-27,308	
SALARY ACT		78,965		111,618	
OTHER					959,553

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## ADP BUDGET ANALYSIS

INSTITUTION		COMM. COLL. OF DENVER - ADMIN. DATA PROCESSING		NUMBER		270730 SCHEDULE A	
1978-79		1979-80		1980-81		1980-81	
FTE/ACTUAL		FTE/ESTIMATE		FTE/REQUEST		FTE/RECOMMEND	
PERSONAL SERVICES	18.20	280,749	18.80	318,347	18.80	324,555	19.80
OPERATING EXPENSE	19,864		24,012		24,012	26,573	34,6559
OPERATING EXPENSE OTHER						24,800	15,421
EQUIPMENT -							26,573
EQUIPMENT RENTAL							15,421
EQUIPMENT C/O							
EQUIPMENT SUB-TOTAL	49,527		34,703		53,165		53,165
TOTAL	18.20	350,160	18.80	377,062	18.80	429,097	19.80
GENERAL FUND	18.20	350,160	18.80	377,062	18.80	429,097	19.80
CASH							441,718
FEDERAL							19.80
SALARY ACT							441,718
OTHER							

## SCHEDULE A

## REQUEST YEAR OBJECTIVES (7% Limit)

In accordance with instructions, the increase in general fund appropriation to finance this request has been limited to 7%. Due to inflation and other factors, a funding increase limited to 7% is not sufficient to maintain the programs of the College at an appropriate level. Accordingly, the College is submitting two sets of Request Year Objectives: One limited to a 7% College-wide increase, and a second budget in the latter part of this submission which reflects the true needs of the College for the 1980-81 fiscal year.

Objective: To provide for price level increases and minimum salary increases.

Request:	0.0 FTE Exempt	\$ 1,662
	0.0 FTE Classified	4,393
	0.0 FTE Hourly	157
	Other Current Expense	5,143
	Travel	680
		\$12,035

Justification: Maintaining the purchasing power of the College faculty and staff is a first priority in order that experienced, high-quality personnel be retained and that equity be afforded those who have cast their lot with the College. This request is for a 7% increase in exempt staff compensation over 1979-80.

The increase in classified compensation is 1.5% and is to annualize merit increases granted during 1979-80. The increases in hourly wages and other current expense are 9.6%, which appears quite conservative compared to the Denver price level increase of 16% over the past 12 months. The requested travel increase is 17%, reflecting increases in mileage rates and per diem allowances and commercial transportation costs.

## FIVE-YEAR PLAN

The ADP plan for the College is multi-staged. Short-range objectives include stabilizing the operations of existing applications so that timely, accurate information is being produced. After achieving this objective, existing application systems will be modified to meet user needs within the limitations of system design. Running parallel with the modifications will be the process of identification and implementation of new application systems aimed at data automation of the remaining major College Administrative functions. The final stage of the plan is to implement a

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College-wide management information system which will feature a process-oriented, DBMS controlled, data base which will be updated, maintained, and accessed through a College telecommunications network.

Budget Year 1976-77 and 1977-78 emphasized stabilizing production from existing systems with some modifications and some new equipment. Budget Years 1978-79, 1979-80, and the Request Year emphasize new development and movement of systems and equipment to on-line inquiry and update processing techniques.

The Division of ADP supports the full request as submitted. In addition, and in coordination with the College the Division requests and recommends that an additional FTE be added to the CCO staff (over and above that which has been requested by the institution) for the explicit purpose of maintaining the common (IAI) accounting system which will be installed and operating in all Community Colleges by July 1, 1980. This application is a singular set of programs and must be controlled and maintained by one organization. This request is in good keeping with the legislative appropriation of \$50,000 to purchase a singular accounting system for the Community Colleges.

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ADP BUDGET ANALYSIS

INSTITUTION CO. OF DENVER - INSTRUCTION COMPUTING  
NUMBER 270730 SCHEDULE 8

SCHEDULE 6

1. Install a Dec 1134 at North Campus in a distributed processing mode with the GGCC.
2. Develop DEC equipment configuration for the Red Rocks and Aurora Campuses.

In accordance with instructions, the increase in general fund appropriation to finance this request has been limited to 7%. Due to inflation and other factors, a funding increase limited to 7% is not sufficient to maintain the programs of the College at an appropriate level. Accordingly, the College is submitting two sets of Request Year Objectives: This one, limited to a 7% College-wide increase, and a second budget in the latter part of this submissioin which reflects the true needs of the College for the 1980-81 fiscal year.

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<u>Request:</u>	0.0 FTE Exempt	\$ 2,407
	0.0 FTE Classified	62
	0.0 FTE Hourly	564
	Other Current Expense	8,848
		\$11,381

**Justification:** Maintaining the purchasing power of College faculty and staff is a first priority in order that experienced, high-quality personnel be retained and that equity be afforded those who have cast their lot with the College. This request is for a 7% increase in exempt compensation over 1973-79, which is clearly not adequate to that end in view of a much higher inflation rate and the small increase allowed in 1979-80. A higher amount, representing the College's true request, is contained in the full request section.

Funding at this level will not permit the leasing of ADP equipment that is needed to replace antiquated terminals now in use for instruction. Additional funds for this purpose are requested in the full request section.

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## ADP MASTER PLAN

## FIVE-YEAR PLAN

The College plan for instructional computing includes both short-range and long-range goals.

A. Short-Range Goals

To provide modern computing capability for students and faculty. This goal can be achieved by accomplishing the 1979-80 instructional objectives and by receiving the request resources 1980-81. Realizing the short-range goals will establish an adequate base of computing capability to begin pursuit of the long-range goal.

B. Long-Range Goals

To provide interactive access to computers for students and faculty through a telecommunications network which includes all three campuses and Central Administration.

The Division of ADP supports the College request as submitted.

In addition, the Division has included the estimate year narrative to illustrate that an instructional mini computer has been installed at the North Campus primarily for interactive instruction and to provide for an on-line registration system. The Division of ADP intends to review the Registration System as applicable for all Community Colleges.

It is paramount that like capability be provided at the Red Rocks and Auraria Campus. This need could not be encompassed within the 7% limitations by the institution. The Division of ADP does support the need for (2) additional mini computers in the amount of \$50,000.

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**ADP MASTER PLAN**

## ADP BUDGET ANALYSIS

## INSTITUTION CGPM, CCLL. OF DENVER

## NUMBER 270730 SCHEDULE 2

	1978-79 FTE/ACTUAL \$	1979-80 FTE/ESTIMATE \$	1980-81 FTE/REQUEST \$	1980-81 FTE/RECOMMEND \$	1980-81 FTE/ADV. BOARD \$
PERSONAL SERVICES					
OPERATING EXPENSE	20.80	313.473	22.40	362.844	22.40
OPERATING EXPENSE OTHER		28.792		41.728	
		10.193		11.268	
EQUIPMENT -					
EQUIPMENT RENTAL					
EQUIPMENT C/O					
EQUIPMENT SUB-TOTAL		120.560	99.845	174.431	174.431
TOTAL	20.80	473.023	22.40	515.685	22.40
				631.720	23.40
GENERAL FUND	21.50	441.154	21.50	465.127	21.50
CASH					608.855
FEDERAL					22.50
SALARY ACT		16.582		29.658	
OTHER	-.70	15.247	0.90	20,900	0.90
					619.357
					22.665

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ADP BUDGET ANALYSIS		INSTITUTION		FCAT LEWIS COLLEGE		NUMBER 270510		SCHEDULE 2		
		1979-79 FTE/ACTUAL	\$	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	1980-81 FTE/RECOMMEND	\$	1980-81 FTE/ADV. BOARD
PERSONAL SERVICES	6.50	97,061	7.00	128,593	9.00	172,827	8.00	151,276	8.00	151,276
OPERATING EXPENSE OTHER		10,270		15,085		17,774		17,774		17,774
<u>EQUIPMENT -</u>										
EQUIPMENT RENTAL		33,775		26,005		28,405		28,405		28,405
EQUIPMENT C/O				60,000		60,000		60,000		60,000
EQUIPMENT SUB-TOTAL		33,775		86,395		88,405		88,405		88,405
<u>TOTAL</u>	<u>6.50</u>	<u>141,106</u>	<u>7.00</u>	<u>230,573</u>	<u>9.00</u>	<u>279,006</u>	<u>8.00</u>	<u>257,455</u>	<u>8.00</u>	<u>257,455</u>
GENERAL FUND	6.50	136,606	7.00	217,859	9.00	279,006	8.00	257,455		
CASH										
FLICKER										
SALARY ACT										
OTHER										

## COMMENTS:

The funding of \$22,074 for a programmer is not recommended at this time since there are two programmers currently on the staff, and Administrative software has been purchased which will greatly reduce development efforts. However, support of a systems analyst is recommended for mainly instructional computing activities, and Administrative systems support as time allows.

## RECOMMENDATIONS

	Increases/Decreases
PERSONAL SERVICES	\$22,074
1.0 FTE systems analyst	
OPERATING EXPENSE	
Inflationary Increase	1,889
<u>EQUIPMENT RENTAL</u>	
Maintenance on purchased equipment	2,310
<u>CAPITAL OUTLAY</u>	
No increase	0
<u>TOTAL</u>	<u>\$26,882</u>

Note: The \$60,000 equipment C/O is a continuation of Minicomputer Purchase Payment Plan.

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## ADP BUDGET ANALYSIS

## INSTITUTION LAMAR COMM. COLLEGE

## SCHEDULE 2

	1978-79 FTE/ACTUAL	\$	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	1980-81 FTE/RECOMMEND	\$	1980-81 FTE/ADV. BOARD	\$
PERSONAL SERVICES	1.70	19,626	1.70	23,743	2.00	31,802	1.70	23,743	1.70	23,743
OPERATING EXPENSE		1,398		1,126		1,905		1,505		1,05
OPERATING EXPENSE OTHER		11,400		11,400		12,198		12,198		12,198
<b>EQUIPMENT</b>										
EQUIPMENT RENTAL										
EQUIPMENT C/O										
<b>EQUIPMENT SUB-TOTAL</b>										
<b>TOTAL</b>	1.70	36,758	1.70	40,603	2.00	60,561	1.70	52,502	1.70	52,502
GENERAL FUND	1.70	24,684	1.70	39,265	2.00	60,561	1.70	52,502		
CASH										
FEDERAL										
SALARY ACT										
OTHER										
			12.074		1,338					

## COMMENTS:

A PDP 11/34 Computer is currently installed at Otero Junior College in LaJunta with a dedicated telephone line to Lamar Community College. Lamar is currently using five inter-active terminals. These terminals are linked to Otero through a pair of ComData multiplexers on loan from Otero Junior College. These allow Lamar Community College to maintain the necessary communications link between the two colleges over a dedicated telephone line. The following advantages are being realized:

- (1) Sharing of common software programs applicable to both schools.
- (2) Reduced computer down-time as a result of better communication lines.
- (3) On-line computer access eliminating coding and key punch processes and improving response time.
- (4) Lower maintenance costs.
- (5) Greater accessibility to computer access as a result of terminals directly in the users office and lower processing costs.

REQUEST YEAR OBJECTIVES:

1. Objective: Retention of competent staff, maintain a constant level of data processing support, and provide for professional level of competence in the staff by providing travel to ADP meetings, professional seminars and to central site.

Lamar Community College in coordination with the State Board of Community Colleges and the Division of ADP will install the Higher Education Accounting System (HES) effective July 1, 1980. Increase of funds in the amount of \$13,237 are necessitated to accomplish this objective.

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ADP BUDGET ANALYSIS

1980

INSTITUTION MESA COLLEGE

NUMBER 270625 SCHEDULE 2

1978-79		1979-80		1980-81		1980-81	
FTE/ACTUAL	\$	FTE/ESTIMATE	\$	FTE/REQUEST	\$	FTE/RECOMMEND	\$
PERSO-NAL SERVICES							
OPERATING EXPENSE							
OPERATING EXPENSE OTHER							
EQUIPMENT -							
EQUIPMENT RENTAL							
EQUIPMENT C/O							
EQUIPMENT SUB-TOTAL							
TOTAL	4.60	146,110	7.00	267,943	7.00	276,300	7.00
GENERAL FUND	5.50	158,289	7.00	259,648	7.00	276,300	7.00
CASH							
FEDERAL							
SALARY ACT							
OTHER							

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The differences between the Budget Estimate, Request and Recommend columns, are due mainly to the release of the dated IBM 360/22 computer system as of 12-31-75, and operating expenses. The ADP/Computing Staff should be commended, for meeting their projected conversion from the 1401 to the 360/22.

DOCUMENTATION

PERSONAL SERVICES  
Salary Act

OPERATING EXPENSE  
Travel, Software

OPERATING EXPENSE  
Software Increase

EQUIPMENT  
Release of IBM - 3

<u>Increases/Decreases</u>	
§ 4,531	
§ (3,485)	
	200
	§ (20,132)
	§ (18,886)
	<u>TOTAL</u>

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## ADP MASTER PLAN

## ADP BUDGET ANALYSIS INSTITUTION METROPOLITAN STATE COLLEGE

	1978-79 FTE ACTUAL	\$	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	1980-81 FTE/RECOMMEND	\$	1980-81 FTE/ADV. BOARD \$
PERSOAL SERVICES	13.20	208,836	14.00	255,902	17.00	326,161	17.00	321,270	321,270
OPERATING EXPENSE		61,512		67,117		72,775		72,725	72,725
OPERATING EXPENSE OTHER									
<b>EQUIPMENT</b>									
EQUIPMENT RENTAL									
EQUIPMENT C/D									
<b>EQUIPMENT SUB-TOTAL</b>	<b>13.20</b>	<b>376,620</b>	<b>14.00</b>	<b>434,948</b>	<b>17.00</b>	<b>510,365</b>	<b>17.00</b>	<b>503,424</b>	<b>503,424</b>
<b>TOTAL</b>	<b>13.20</b>	<b>361,159</b>	<b>13.20</b>	<b>402,884</b>	<b>16.20</b>	<b>498,833</b>	<b>16.20</b>	<b>491,892</b>	<b>491,892</b>
GENERAL FUND									
CASH									
FEDERAL									
SALARY ACT	11,001	0.60	20,532	0.80	11,532	0.80	11,532	0.80	11,532
OTHER	4,460		11,532						

## COMMENTS:

Support is recommended for a systems analyst to maintain the security and integrity of software essential for operating a Data Base Management System (ADABAS) at GGCC, Quality control of documentation standards, monitoring the operational functions and liaison of the twelve software packages used at GGCC. Also, one systems analyst and one programmer are supported for redesigning and/or replacing the Accounts Receivable/Student Billing, Accounts Payable and State Accounting subsystems, and State Personnel System support.

## RECOMMENDATIONS:

	Increases/Decreases
PERSONAL SERVICES	
3.0 FTE two systems analysts and one programmer	\$60,160
Salary Act	4,762
Sub-Total	\$65,368
OPERATING EXPENSE	5,608
Informationary costs	
EQUIPMENT	
Rental (discontinued)	(2,500)
<b>TOTAL</b>	<b>\$68,476</b>

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## ADP BUDGET ANALYSIS

INSTITUTION		OTERC JUNIOR COLLEGE		NUMBER		270765 SCHEDULE 2	
1978-79		1979-80		1980-81		1980-81	
FTE/ACTUAL		FTE/ESTIMATE		FTE/REQUEST		FTE/RECOMMEND	
PERSONAL SERVICES	3.20	56,570	3.50	72,934	3.50	72,133	3.50
OPERATING EXPENSE	4,013		4,700		6,000	5,000	72,934
OPERATING EXPENSE OTHER			2,103		3,000	12,000	5,000
<b>EQUIPMENT -</b>							12,000
EQUIPMENT RENTAL							
EQUIPMENT C/O							
<b>EQUIPMENT SUB-TOTAL</b>	<b>36,312</b>		<b>30,457</b>		<b>54,820</b>		<b>39,457</b>
					28,500	8,000	8,000
<b>TOTAL</b>	<b>3.20</b>	<b>99,495</b>	<b>3.50</b>	<b>110,191</b>	<b>3.50</b>	<b>164,453</b>	<b>3.50</b>
GENERAL FUND	3.20	82,215	3.50	102,595	3.50	164,453	3.50
CASH		13,248					
FEDERAL							
SALARY ACT		1,857		3,721			
OTHER		2,0135		3,875			

## REQUEST YEAR OBJECTIVES AND JUSTIFICATION

To maintain and improve the level of operation for the existing number of users and applications will continue to be the basic goal of the Computer Center. We have reached the point of full utilization of present equipment now installed on the computer and are unable to meet the demands of an increasing number of users. The budget requests, therefore, are directed at improving the present system to allow the Computer Center to maintain existing users and meet some of the critical needed demands.

Professional compensation increases are requested at 9%. The request year will require 2 full year of funding for programmer positions, compared to 9 months in the estimate year. This is due to the changes in staffing which took place early in the 1979-80 Fiscal Year.

The large increase shown on line 25 of Format 454 represents a change in this line item to reflect actual cost of equipment maintenance. Other operating expenses are requested at estimated actual need.

Specific objectives follow:

Objective 1:

Add eight additional ports to allow for increase in number of terminals.

Request: - \$ 3,200

Justification:

Lamar Community College currently has five terminals and their needs require an additional three terminals. At the present time there are no terminal ports available. The five additional ports will be used to increase educational computing for which there is an enormous demand.

Objective 2:

Add Cache Memory and floating point processor to improve performance of computer.

Request: - \$11,800

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Justification:

The computer is utilized mainly in a time-sharing interactive environment where response time should seldom exceed 5-6 seconds. Due to the existing number of users and size of jobs being run, response time has deteriorated to 10-15 seconds or more (critical point). This equipment will allow our present computer to operate faster allowing more users and faster execution of jobs, and improve the response time factor of interactive users.

The D&P has modified the request need under Objective 1, 2 and 4 to a time payment plan (3) with the specific objective to install equipment to implement the IAI Accounting System.

\$16,200 on line 24 of the detailed request is not fully explained in the narrative request.

Objective 3:

Educational equipment (graphics terminal), plotter, micro computer, replace two old terminals with two new terminals).

Request: - \$ 3,000 a year for three years (lease)Justification:

If we are to keep our educational program up-to-date and expect to graduate students who are employable, then we must have the necessary equipment to provide this type of education. The increased enrollment in data processing classes demands additional educational equipment.

Objective 4:

Short haul modems (administrative computing)

Request: - \$ 1,000 a year for three years (lease)Justification:

The administrative users have been restricted to 300 BPS on 30 characters per second terminals because of the distance from the computer. Short haul modems will allow the administrative users to increase their terminal speeds and provide improved service required by them.

Objective 5:

Maintenance on computer and terminals

Request: - \$13,656Justification:

With two colleges using the one computer, it is essential that it be maintained. The computer maintenance costs \$1,018 a month for a yearly cost of \$12,216. Likewise we must assure the users equipment that will operate and \$120 a month for a year, or \$1,440, will help provide the service that is required.

Objective 6:

Software License

Request: - \$ 3,000Justification:

One software license must be maintained if we are to provide a quality computing service. Without this service we would no longer receive software patches for our computer operating system and new system updates or new system releases. We would also lose our license to WATBOL (COBOL), FORTRAN IV, SPSS/C, all of which are required in our educational program.

Objective 7:

Dial-up-Communication

Request: - \$ 3,000Justification:

The usage of dial-up-computer capabilities is being heavily used and is the mode used by teachers for instruction. Present cost is \$354 and an additional \$250 is being requested to increase our capabilities but are 14% more than the current cost.

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## ADP BUDGET ANALYSIS

## INSTITUTION PIKES PEAK COMM. COLLEGE

	1978-79 FTE/ACTUAL \$	1979-80 FTE/ESTIMATE \$	1980-81 FTE/AE QUEST \$	1980-81 FTE/RECOMMEND \$	1980-81 FTE/ADV. BOARD \$
PERSONAL SERVICES	8.20	135,784	12.00	219,216	11.50
OPERATING EXPENSE		16,018		16,435	
OPERATING EXPENSE OTHER				16,295	11.50
EQUIPMENT -					
EQUIPMENT RENTAL		53,909	46,060	77,703	77,703
EQUIPMENT C/D		4,512	12,316	17,089	14,704
EQUIPMENT SUB-TOTAL		58,412	58,376	94,792	92,407
TOTAL	8.20	210,223	12.00	294,627	11.50
GENERAL FUND	6.70	189,502	10.00	246,011	10.00
CASH					
FEDERAL					
SALARY ACT	1.50	20,721	2.00	16,500	29,531
OTHER				31,516	1.50
					29,531

## ESTIMATE YEAR (1979-80)

The IAI accounting system will be developed and tested this fiscal year with implementation expected July 1, 1980.

## REQUEST YEAR OBJECTIVES AND JUSTIFICATION

## 1. Personnel

Objective:  
To provide the necessary personnel to maintain acceptable services for the administrative and instructional users of the Computer Center.

Request:  
PPCC requests 11.5 FTE at a cost of \$214,558.

Justification:  
The personnel are needed to continue to provide acceptable services to the users of the Computer Center. Current processes provide a cost avoidance in excess of \$400,000 for the user offices. This cost avoidance represents the FTE that would be needed in the user's offices if computer processing were not available.

This request represents a 0.5 FTE reduction from our estimate year budget and a cost reduction of \$3,021.

## 2. Hardware and Other Operating Expense

Objective:  
To provide the necessary funding to rent, lease, and maintain the hardware and supplies required to continue computer support services for the users of the Computer Center.

Request:  
PPCC request \$111,067 for hardware and other operating expenses. This amount includes \$77,702 for ongoing hardware expense, \$16,295 for supplies and travel, and \$17,089 for ongoing capital outlay for purchased equipment. The increase in hardware and other operating expenses is the result of higher maintenance costs for the new computer system that was transferred to PPCC from CU.

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Justification: The Computer Center is providing computing services to all administrative offices and instructional areas of the college. The use of the computer provides the user offices with timely processing and reports.

Based on statistics provided by the office of the registrar, it would take in excess of 35,000 hours annually to manually prepare the reports that are generated on the computer. Only 2,200 hours are required to prepare the computer input to generate these reports. To prepare the reports manually would require an additional 17.0 FTE in the office of the registrar.

Statistics from the accounting office indicate that it would require 29,316 hours to manually prepare accounting reports compared with only 300 hours to prepare the computer input to generate the reports on the computer. To prepare these reports manually would require an additional 14.0 FTE in the accounting office.

Other users of the Computer Center experience similar reductions in manual processing as a result of computer applications. This includes the Financial Aid office, Admissions office, Payroll office, and Personnel office.

#### Hardware and Other Operating Expense Summary

##### COSTS - CONTINUING

##### Ongoing Expense:

##### Hardware and operating expenses

##### Travel

\$92,498

1,500

Capital Outlay: This request is for continuation of payments on a mini computer and key punch equipment. The key punch machines installed at PPCC have obtained maximum rental accruals and are being purchased effective July 1, 1979. The payout of the machines is 24 months. Our operating expense has been reduced by the amount of the capital outlay allocation of \$4,704.

The payment on the mini computer represents a proportionate share of the cost of the system that will be used to develop and implement the IAI accounting system. This computer is used in the instructional program and will be shared for the purpose of implementing the accounting system.

The total recommendation for capital outlay is \$14,704.

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ADP BUDGET ANALYSIS		INSTITUTION		PUEBLO VOCATIONAL COMMUNITY COLLEGE		NUMBER		270760		SCHEDULE 2	
1978-79		1979-80		1980-81		1980-81		1980-81		FTE/ADV. BOARD \$	
FTE/ACTUAL \$		FTE/ESTIMATE \$		FTE/REQUEST \$		FTE/RECOMMEND \$		FTE/RECOMMEND \$		FTE/ADV. BOARD \$	
PERSONAL SERVICES											
OPERATING EXPENSE	0.60	9,297	1.70	36,253	1.50	28,704	1.50	28,704	1.50	3,146	3,146
OPERATING EXPENSE OTHER		2,299		3,146		3,146		3,146		3,906	3,906
EQUIPMENT -											
EQUIPMENT RENTAL		2,574		3,912		3,912		3,912		3,912	3,912
EQUIPMENT C/O		7,845		8,327		8,327		8,327		6,327	6,327
EQUIPMENT SUB-TOTAL		10,459		12,239		12,239		12,239		12,239	12,239
TOTAL		0.60	26,596	1.70	53,544	1.50	47,995	1.50	47,995		
GENERAL FUND		0.60	26,596	1.70	53,544	1.50	47,995	1.50	47,995		
CASH											
FEDERAL											
SALARY ACT											
OTHER											
REQUEST YEAR											

Objective:

- Install the IAI Accounting System and establish communication access to the General Government Computer Center (GGCC)

Request:

- Add communication adapters to Series/I
- Add dial-up communication cost
- Total

Justification:

- Since all software for the IAI Accounting System is maintained and installed at GCCC, implementation of the system will not be possible without this equipment.

Objective:

- Hire a Director/Programmer to manage the Series/I and write computer programs as required for administrative support.

Request:

- 1 FTE Director/Programmer

Justification:

- The Business Manager has assumed this responsibility for 1979-80, however, maximum efficiency and utilization of the mini-computer system will require a full-time Manager/Programmer.

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## ADP BUDGET ANALYSIS

## INSTITUTION TRINIDAD STATE JR. COLLEGE

	1978-79 FTE/ACTUAL	\$	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	FTE/RECOMMEND	\$	1980-81 FTE/ADP. BOARD \$
PERSONAL SERVICES	2.60	44,564	4.10	68,429	4.10	72,523	4.10	72,523	72,523
OPERATING EXPENSE					7.25!	7.839			7.639
OPERATING EXPENSE OTHER									
EQUIPMENT									
EQUIPMENT RENTAL									
EQUIPMENT C/O									
EQUIPMENT SUB-TOTAL									
TOTAL	2.60	65,738	4.10	113,534	4.10	130,519	4.10	130,519	4.10
GENERAL FUND	2.60	66,371	4.10	111,275	4.10	130,519	4.10	130,519	
CASH									
FEDERAL									
SALARY ACT					2.309				
OTHER					-635				

## ACCOMPLISHMENTS - ESTIMATED YEAR

Support for the administrative operation will be continued with improvements in systems and user output resulting from ongoing efforts. The instructional process will also continue to provide salable job skills. The installation of a new PDP 11-34 computer funded in 1979-80 will be completed. Numerous programs written and the State Board for Community Colleges and Occupational Education IAI accounting system will be placed on line. The result should be greatly improved data processing capabilities in all areas. Planning will continue for further implementation of the system.

## PAST YEAR OBJECTIVES AND JUSTIFICATION

## OBJECTIVES - General

With the installation of the new computer the college will be able to provide twelve hours per day operational time and equipment to support instructors and students. Daytime hours are prime instructional hours; evening hours are used for administrative work. Expansion and improvement of information and reporting systems will benefit the total administration of the college. We will be able to use remote terminals for student records systems, statistical data base systems, and with the implementation of the Higher Education Accounting System (IAI) the college will be compatible with all state community colleges.

## OBJECTIVE - Professional Compensation Increases - 9.0%

## REQUEST - Priority #1

Salaries &amp; Benefits \$ 3,611

## JUSTIFICATION

In keeping with the State Board for Community Colleges and Occupational Education and institutional priorities, exempt staff compensation increases have been defined as the first priority in order to maintain purchasing power of the administrative staff due to losses caused by inflation and to keep pace with similar positions in other institutions, the private sector, and the classified personnel of Colorado employed in similar administrative positions. Funding at this level also continues the equity between administration and faculty.

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<u>OBJECTIVE</u> - Support Salary Increases - 1.7%	
<u>REQUEST</u> - Priority #1	
Salaries & Benefits	483
<u>JUSTIFICATION</u>	
Most increases are requested at an estimated 1.7% as required to be provided and to offset prior period underfunding of the central pots. Hourly wages are increased by a similar amount.	
<u>OBJECTIVE</u> - Other Current Expenses - 7.0%	
<u>REQUEST</u> - Priority #2	
Equipment Rental Expense	\$12,253
<u>JUSTIFICATION</u>	
With the implementation of the Higher Education Accounting System, communications capability were required to operate the common application at the General Government Computer Center in Denver. Shared telephone lines and modem costs are estimated at \$12,253.	
<u>OBJECTIVE</u> - General Operating Expense Increase	
<u>REQUEST</u> - Priority #3	
Operating Expense	\$ 588
<u>JUSTIFICATION</u>	
Travel costs are estimated at a 17.0% increase due to the increased cost of gasoline and per diem rates increased several times over the past several years with no corresponding increases in appropriation. Travel has been reduced to a minimum but limited travel is still required to provide services to students and staff.	
<b>TOTAL REQUESTED INCREASE</b>	<b>\$19,244</b>

## ADP BUDGET ANALYSIS

## INSTITUTION UNIV OF COLORADO BOULDER - COMPUTING CENTER

	1978-79 FTE/ACTUAL	\$	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	1980-81 FTE/RECOMMEND	\$	1980-81 FTE/ADV. BOARD	\$
PERSONAL SERVICES	44.70	960,444	47.00	1,097,679	47.00	1,104,295	47.00	1,058,674	47.00	1,098,674
OPERATING EXPENSE		164,652		205,779		218,926		218,158		216,158
OPERATING EXPENSE OTHER		158,015		161,470		161,470		161,470		161,470
EQUIPMENT -										
EQUIPMENT RENTAL		570,084		854,091		999,565		999,565		999,565
EQUIPMENT C/O		56,000								
EQUIPMENT SUB-TOTAL		570,084		910,091		999,565		999,565		999,565
TOTAL	44.70	1,053,195	47.00	2,375,019	47.00	2,484,256	47.00	2,477,867	47.00	2,477,867

GENERAL FUND  
CASH  
FEDERAL  
SALARY ACT  
OTHER

47.70  
1,326,978  
-3.00  
-26,649  
-16,948

569,814  
1,300,000  
-  
-10,176  
-

2

## REQUEST YEAR OBJECTIVES AND JUSTIFICATION

## Objective #1

To meet ongoing costs of supplies and expense, and to continue rental and maintenance of both existing hardware and software, and hardware to be acquired during FY 79-80.

## Request:

Format 454A	Line #	1979-80 Estimate	1980-81 Request	Increase (Decrease)
EAM Equipment	019	\$ 9,690	\$ 10,174	\$ 484
EDP Equipment	020	386,425	401,925	15,500
Data Transmission	021	79,394	81,679	2,285
Data Creation	022	42,479	44,603	2,124
Auxiliary Storage	023	1,620	1,701	81
Terminal Equipment	024	33,750	33,750	0
Maintenance	025	300,733	325,733	25,000
Other Contracts	029	15,000	15,000	0
Building Rental	030	87,970	87,970	0
Adm. Overhead	031	58,500	58,500	0
Travel	032	17,826	17,826	0
Supplies & Expense	033	187,953	201,100	13,147
		\$1,221,340	\$1,279,961	\$58,621

## Justification:

The funds shown in the "request" column above are those necessary to continue the level of operation which will be in effect at the close of FY 79-80. The request is based upon best estimates and vendors' preliminary data.

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ADP MASTER PLAN

**Objective #2****To lease an instructional mini-computer**\$100,000**Request:****Justification:**

A recently completed study of computing needs calls for the rapid buildup of both small-and-medium scale interactive computing services. Many academic departments now require extensive computing services in order to prepare students adequately for their roles in modern computer-intensive science, business and industry. This need will be partially met by lease of an initial mini-computer system during FY 79-80. The requested rental of a second, smaller mini-computer will be a further step in implementing the CU five year plan for instructional, research and public service computing, which anticipates a need for at least five mini-computers by FY 84-85.

**DIVISION OF ADP RECOMMENDATION:**

The Division is recommending an increase of \$50,000 in cash earnings vs. General Fund. In this regard the Division has requested that the University review its current cash earnings position and to fully analyze the methods used in future year projections.

ADP BUDGET ANALYSIS INSTITUTION UNIV OF COLORADO BOULDER - ADM INSTITUTE CENTER NUMBER 270210 SCHEDULE B

	1978-79 FTE/ACTUAL \$	1979-80 FTE/ESTIMATE \$	1980-81 FTE/REQUEST \$	1980-81 FTE/RECOMMEND \$	1980-81 FTE/ADCB/BOARC \$
PERSONAL SERVICES					
OPERATING EXPENSE	42.40 910,607	45.80 1,006,587	45.80 1,006,587	45.80 1,006,587	
OPERATING EXPENSE OTHER	25,928	28,326	32,500	32,500	32,500
69,896	69,896	22,200	25,000	25,000	25,000
EQUIPMENT -					
EQUIPMENT RENTAL	147,672	499,604	655,663	621,818	
EQUIPMENT C/Q	52,867	24,718			
EQUIPMENT SUB-TOTAL	201,539	524,322	655,663	621,818	
TOTAL	42.40 1,207,970	45.80 1,581,435	45.80 1,719,750	45.80 1,685,905	45.80 1,685,905
GENERAL FUND					
CASH	45.10 1,169,620	45.80 1,444,071	45.80 1,719,750	45.80 1,665,505	
FEDERAL	43,350	30,000			
SALARY ACT	-2.70 -25,000				107,364

## REQUEST YEAR OBJECTIVES AND JUSTIFICATION

### Objective #1:

To meet ongoing costs of supplies and expenses, and to continue rental and maintenance of previously-appropriated hardware and software.

The following table presents Objective #1 by line item of Format 454B. The funds in the "request" column of the table are those necessary to continue current levels of operation.

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Format 4558 - Line #	1979-80 Estimate	1980-81 Request	Increase/ Decrease
Equipment (019)	\$ 13,125	\$ 13,780	\$ 655
EDP * Equipment (020)	387,383	426,121	+38,738
Data Creation (022)	26,400	31,650	+5,280
Auxiliary Storage (023)	2,187	2,625	+438
Terminal Equipment (024)	15,120	18,145	+3,025
Maintenance (025)	55,389	66,467	+11,078
Software (029)	22,200	25,000	+2,800
Subtotal	\$521,804	\$583,818	\$62,014
Travel (023)	\$ 2,309	\$ 2,500	\$ +191
Supplies & Expense (033)	\$ 26,017	\$ 30,000	+3,933
Subtotal	\$ 28,326	\$ 32,500	\$ 4,174
Capital Outlay	\$ 24,718		-0-
<b>TOTAL</b>	<b>\$514,848</b>		<b>\$616,318</b>

\*Electronic Accounting Machines; \* Electronic Data Processing

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## ADP MASTER PLAN

Justification:

Best estimates and vendors' preliminary data indicated costs of existing hardware and software will increase by the amounts shown in the preceding table. This request is full-year funding for equipment already approved and installed.

Objective #2:

Funds are requested for the rental of a disc control unit and for disc storage. The equipment is to be installed in July of 1980.

Rental

One (1) 3830 Type Disc Control Unit	\$28,345
Two (2) 3350 Type Disc Drives	<u>30,000</u>
	\$58,345

Justification:

The control unit is necessary to provide the interface between the requested disc storage is needed for the implementation of the new accounts receivable system and to relieve the current shortage of direct access storage. The new accounts receivable system will include a comprehensive billing module requiring the storage of large amounts of billing detail for approximately 30,000 students.

Objective #3

Funds are requested for the rental of a high-speed printer.

Rental

One (1) 3211 Type Printer	\$24,000
---------------------------	----------

Justification:

CACPC currently has two (2) eleven hundred line per minute printers. This is insufficient to keep up with the output from the central processor. This results in delays in the delivery of reports to university offices. A new 2000 line per minute printer will eliminate these delays.

Objective #4

Funds are requested for the rental of a tape control unit and one new high-density tape drive.

Rental

One (1) 3803 Type Tape Control Unit	\$ 7,500
One (1) 3420 Type Tape Drive	<u>7,000</u>
	\$14,500

Justification:

The present string of eight tape drives is fully utilized and demand for tape resources is increasing. The storage of tape drives results in delays in processing jobs until resources can be released from another job. In addition, the online terminals require logging of all transactions on a high density tape. Present configuration of tape drives results in delays in response time when the tape channel is busy on batch jobs.

DIVISION OF ADP RECOMMENDATION

From the above stated objectives the Division of ADP recommends inflation increase for maintenance and rental equipment at \$51,869. The request for a new printer is recommended as 1/2 year (\$12,000) and the requested new disc drives are recommended at \$58,345. The tape drive request is not recommended for FY 80-81.

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ADP MASTER PLAN

ADP BUDGET ANALYSIS		INSTITUTION		UNIV OF COLORADO BOULDER		NUMBER		270210		SCHEDULE 2	
1978-79		1979-80		1980-81		1980-81		FTE/ADV. BOARD \$		FTE/ADV. BOARD \$	
FTE/ACTUAL		FTE/ESTIMATE		FTE/REQUEST		FTE/RECOMMEND		\$		\$	
PERSORIAL SERVICES	87.10	1,871,051	92.80	2,104,266	92.80	2,110,882	92.80	2,105,261	92.80	2,105,261	
OPERATING EXPENSE		190,580		234,105		251,426		251,426		251,426	
OPERATING EXPENSE OTHER		227,911		183,670		186,470		186,470		186,470	
EQUIPMENT											
EQUIPMENT RENTAL		717,756		1,353,695		1,655,228		1,621,383		1,621,383	
EQUIPMENT C/O		53,867		80,716							
EQUIPMENT SUS-TOTAL		771,623		1,434,413		1,655,228		1,621,383		1,621,383	
TOTAL		87.10	3,061,165	92.80	3,556,454	92.80	4,204,006	92.80	4,164,540	92.80	4,164,540
GENERAL FUND	92.80	1,759,434	92.80	2,408,914	92.80	2,874,006	92.80	2,864,540			
CASH		1,370,328		1,330,000		1,330,000		1,330,000		1,330,000	
FEDERAL											
SALARY ACT		-5.70		-51,649		217,540					
OTHER				-16,548							

ADP BUDGET ANALYSIS

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ADP MASTER PLAN

ADP BUDGET ANALYSIS		INSTITUTION		UNIV OF COLOR. COLOR. SPRINGS - INSTRUCTION		NUMBER		270240 SCHEDULE A	
1978-79		1979-80		1980-81		1980-81		1980-81	
FTE/ACTUAL		FTE/ESTIMATE		FTE/REQUEST		FTE/RECOMMEND		FTE/ADV. BOARD \$	
PERSONAL SERVICES	2.90	35,653	3.00	41,098	4.30	57,948	4.30	57,548	57,948
OPERATING EXPENSE		23,464		8,581		4,531		4,531	4,531
OPERATING EXPENSE OTHER		30,500		47,000		35,250		35,250	35,250
EQUIPMENT -									
EQUIPMENT RENTAL		26,630		26,600		31,039		31,039	31,039
EQUIPMENT C/O		17,367		28,000		28,000		33,300	33,300
EQUIPMENT SUB-TOTAL		43,967		54,600		59,039		64,339	64,339
TOTAL	2.90	133,584	3.00	151,279	4.30	156,768	4.30	162,668	162,068
GENERAL FUND	2.90	133,584	3.00	151,279	4.30	156,768	4.30	162,668	
CASH									
FEDERAL									
SALARY ACT									
OTHER									

## REQUEST YEAR OBJECTIVES AND JUSTIFICATION

TOTAL OPERATING REQUEST	•	•	•	•	•	•	•	\$328,874
(includes 430 capital outlay - \$46,000)								FTE 7.8
REQUESTED INCREASE	•	•	•	•	•	•	•	\$ 32,079
								FTE 1.8
Objective #1	Increase support for instructional and administrative computing applications.							
Request	Rental and maintenance	•	•	•	•	\$ 7,319		
	Supplies and expense	•	•	•	•	910		
	Support staff compensation	•	•	•	•	21,650		
						FTE 1.8		

## Justification

The number of students and courses relying on computer services has increased substantially during the past few years. The addition of a program in computer sciences will result in further substantial increases in computer users. Administrative use has also increased and additional rental and supplies funding is requested.

Objective #2 Upgrade mini-computer installed in 1979-80 to provide capability of serving needs of both instructional data processing and administrative data processing.

## Request

Increase requested • • • • • \$ 18,000

Justification The present remote terminal used for administrative data processing is outdated and expensive to maintain. This increase to acquire software and additional hardware will enable UCS to combine academic and administrative computing into one mini-computer. This will also make it possible to do additional academic computing locally, reducing dependence on Boulder academic computing facilities. This upgrade in equipment for administrative purposes is not supported by the DADP. \$3000 is recommended for emulation RJE software to operate on the new/existing equipment.

## Objective #3 Reduce dependence on Boulder academic computing facilities.

## Request

Decrease requested • • • • • (\$ 15, 300)

Justification The acquisition of software and computer hardware described in Objective #2 will make it possible to do additional academic computing on the UCS campus, reducing the need for services otherwise acquired from Boulder academic computing facilities.

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ADP MASTER PLAN

ADP BUDGET ANALYSIS		INSTITUTION		UNIV OF COLOR. COLOR. SPRINGS - ADMINISTRATION		NUMBER		270240 SCHEDULE B	
1978-79		1979-80		1980-81		1980-81		1980-81	
FTE/ACTUAL \$		FTE/ESTIMATE \$		FTE/REQUEST \$		FTE/RECOMMEND \$		FTE/ADV. BGARD \$	
PERSONAL SERVICES									
OPERATING EXPENSE									
OPERATING EXPENSE OTHER	3.30	45,748	3.00	51,960	3.50	56,760	3.50	56,760	3.50
	4,622		8,448		9,358				
	7,108		56,008		56,008				
EQUIPMENT -									
EQUIPMENT RENTAL		29,387		29,100		31,980		31,980	
EQUIPMENT C/O						18,000		3,000	
EQUIPMENT SUB-TOTAL		29,387		29,100		49,980		34,980	
TOTAL	3.30	86,865	3.00	145,516	3.50	172,106	3.50	101,098	3.50
GENERAL FUND									
CASH									
FEDERAL									
SALARY ACT									
OTHER									

## SCHEDULE B

Administrative service costs are recommended within the Boulder Computing appropriation. DADP recommends that services be allocated from the Boulder campus and that General Fund appropriations to Colorado Springs be reduced \$56,000.

Capital outlay is recommended at \$36,300 as opposed to the \$46,000 request. Specific equipment to be added to the mini computer for administrative purposes is not recommended.

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ADP BUDGET ANALYSIS		INSTITUTION		UNIV OF COLO. COLO. SPRINGS		NUMBER		270240		SCHEDULE 2	
1978-79		1979-80		1980-81		1980-81		1980-81		FTE/ADV. BOARD \$	
FTE/ACTUAL \$		FTE/ESTIMATE \$		FTE/REQUEST \$		FTE/RECOMMEND \$		FTE/RECOMMEND \$		FTE/ADV. BOARD \$	
PERSONAL SERVICES	6.20	81,401	6.00	93,058	7.80	114,708	7.80	114,708	7.80	114,708	114,708
OPERATING EXPENSE		28,086		17,029		13,889		13,889		13,889	13,889
OPERATING EXPENSE OTHER		37,608		103,008		91,258		91,258		91,258	91,258
EQUIPMENT -											
EQUIPMENT RENTAL		55,987		55,700		63,019		63,019		63,019	63,019
EQUIPMENT C/O		17,367		28,000		46,000		46,000		46,000	36,300
EQUIPMENT SUB-TOTAL		73,354		83,700		109,019		109,019		109,019	99,319
TOTAL	6.20	220,449	6.00	296,795	7.80	328,874	7.80	328,874	7.80	328,874	263,466
GENERAL FUND	6.00	183,750	6.00	287,240	7.80	328,874	7.80	328,874	7.80	328,874	263,166
CASH											
FEDERAL											
SALARY ACT											
OTHER	0.20	4,459		32,240		9,555		9,555		9,555	

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## ADP BUDGET ANALYSIS

## INSTITUTION UNIV OF COLO. DENVER - INSTRUCTION

	1978-79 FTE/ACTUAL	\$	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	FTE/RECOMMEND	\$	1980-81 FTE/ADP. BOARD	\$	
PERSONAL SERVICES	3.80	42,576	3.80	43,155	4.00	51,258	4.00	51,258	4.00	51,258	
OPERATING EXPENSE	9,534			10,769		11,732		11,732		11,732	
OPERATING EXPENSE OTHER	90,205		74,300		78,015		78,015		78,015		
<b>EQUIPMENT -</b>											
EQUIPMENT RENTAL	21.812		27.954		29.072		29.072		29.072		
EQUIPMENT C/O					38,000		38,000		38,000		
<b>EQUIPMENT SUB-TOTAL</b>	<b>21.812</b>		<b>27.954</b>		<b>67.072</b>		<b>67.072</b>		<b>67.072</b>		
<b>TOTAL</b>	<b>3.80</b>	<b>164,127</b>	<b>3.80</b>	<b>156,176</b>	<b>4.00</b>	<b>208,077</b>	<b>4.00</b>	<b>208,077</b>	<b>4.00</b>	<b>208,077</b>	

## SCHEDULE A

REQUEST YEAR OBJECTIVES AND JUSTIFICATION

- Objective: To provide necessary supplies and services.

## Requested Increase:

Operating Expenses \$ 5,796

Justification: These funds are needed to cover increased costs for supplies, rentals, and maintenance, and to accommodate increased computer usage.

2. Objective: To provide adequate supervision and planning.

## Requested Increase:

.25 FTE Exempt-Staff Compensation \$ 7,499

Justification: The directorship is now a half-time position (.25 FTE in instructional Data Processing and .25 FTE in Administrative Data Processing). A full-time director is needed to provide adequate supervision and planning.

3. Objective: To provide local timeshare capabilities and to replace the UT200 Terminal.

## Requested Increase:

Capital Outlay for one terminal  
(See Format 480, Capital Outlay for request) \$36,000

Justification: The UT200 remote job entry terminal is over six years old, and its down time due to failure of the machine has been as high as 12 hours per week during peak periods. Also, the University of Colorado Five-Year Computing Plan calls for a small-scale timeshare terminal at Denver in FY 80-81 and a medium scale timeshare terminal in FY 82-83. The above price estimate for the first year at a three-year lease purchase plan will allow the acquisition of a machine to meet the terminal needs in FY 80-81 and could be upgraded in FY 82-83.

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## ADP BUDGET ANALYSIS

## INSTITUTION UNIV OF COLO. DENVER - ADMINISTRATION

	1978-79 FTE/ACTUAL	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	1980-81 FTE/RECOMMEND	\$	1980-81 FTE/ADV. BOARD	\$
PERSONAL SERVICES	3.70	49,707	3.70	55,949	4.00	64,052	4.00	64,052	
OPERATING EXPENSE		6,889		16,567		18,054		18,054	
OPERATING EXPENSE OTHER		28,708		28,708		30,955			
<b>EQUIPMENT -</b>									
EQUIPMENT RENTAL	48,479		54,538		61,505		61,505		
EQUIPMENT C/Q			3,000						
<b>EQUIPMENT SUB-TOTAL</b>	<b>48,479</b>		<b>57,538</b>		<b>61,505</b>		<b>61,505</b>		<b>61,505</b>
<b>TOTAL</b>	<b>3.70</b>	<b>133,783</b>	<b>3.70</b>	<b>158,762</b>	<b>4.00</b>	<b>174,570</b>	<b>4.00</b>	<b>143,611</b>	<b>4.00</b>
<b>GENERAL FUND</b>	<b>3.70</b>	<b>133,783</b>	<b>3.70</b>	<b>158,762</b>	<b>4.00</b>	<b>174,570</b>	<b>4.00</b>	<b>143,611</b>	
CASH									
FEDERAL									
SALARY ACT									
OTHER									

## SCHEDULE B

## REQUEST YEAR OBJECTIVES AND JUSTIFICATION

1. Objective: To provide necessary supplies and services.

Requested Increase:

## Operating Expenses

Justification: This amount covers the increased costs of supplies, rentals, and maintenance and the additional supplies necessary to accommodate increased computer usage.

2. Objective: To provide adequate supervision and planning.

Requested Increase:

## .25 FTE Exempt-Staff Compensation

Justification: The directorship is now a half-time (.25 FTE in instructional Data Processing and .25 FTE in Administration Data Processing). A full-time director is needed to provide adequate supervision and planning.

Objective: To provide display terminals for Continuing Education and Payroll/Personnel.

Requested Increase:

## Operating Expenses

Justification: The request includes a CRT/control unit and two CRT terminals. One will be used by continuing Education to enter information into the Admissions and Records system. The other will be used by Payroll/personnel which will have on-line capabilities by FY 80-81.

Administrative service costs are recommended within the Boulder appropriation. The Division of ADP recommends that computer services be allocated from the Boulder center and that General Fund appropriations to the University of Colorado at Denver be reduced \$28,708 from the FY 79-80 expenditures.

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INSTITUTION		UNIV OF COLOR. DENVER		NUMBER		270230		SCHEDULE 2	
1978-79		1979-80		1980-81		1980-81		FTE/ADV BOARD \$	
FTE/ACTUAL \$		FTE/ESTIMATE \$		FTE/REQUEST \$		FTE/RECOMMEND \$			
PERSONAL SERVICES	7.50	92,283	7.50	99,104	8.00	115,310	8.00	115,310	8.00
OPERATING EXPENSE		16,423		27,336		29,786		29,786	
OPERATING EXPENSE OTHER		118,913		103,008		108,974		78,415	
EQUIPMENT -									
EQUIPMENT RENTAL	70,291		82,492		90,577		90,577		90,577
EQUIPMENT C/O		3,000		3,000		38,000		38,000	
EQUIPMENT SUB-TOTAL		70,291	85,492	128,577		128,577		128,577	
TOTAL		7.50	297,910	7.50	314,940	8.00	382,647	8.00	351,688
GENERAL FUND									9.00
CASH	7.50	285,472	7.50	305,703	8.00	382,647	8.00	351,688	
FEDERAL									
SALARY ACT									
OTHER									

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## ADP BUDGET ANALYSIS INSTITUTION UNIV OF COLO. MED. CTR. - COMPUTER OPERATIONS NUMBER 270220 SCHEDULE A

	1978-79 FTE/ACTUAL \$	1979-80 FTE/ESTIMATE \$	1980-81 FTE/REQUEST \$	1980-81 FTE/RECOMMEND \$	1980-81 FTE/ADV. BOARD \$
PERSONAL SERVICES	42.90	757.028	43.00	875.448	50.50
OPERATING EXPENSE		327.981		1,008.850	47.00
OPERATING EXPENSE OTHER			334.097	377.385	360.624
<b>EQUIPMENT -</b>					
EQUIPMENT RENTAL		458.612		564.542	570.236
EQUIPMENT C/O					
<b>EQUIPMENT SUB-TOTAL</b>	<b>458.612</b>		<b>504.542</b>		<b>570.236</b>
<b>TOTAL</b>	<b>42.90</b>	<b>1,543.621</b>	<b>43.00</b>	<b>1,014.087</b>	<b>50.50</b>
GENERAL FUND	36.50	1,384.011	36.50	1,478.585	44.00
CASH				1,798.897	40.50
FEDERAL					1,715.210
SALARY ACT		50.815		92.249	
OTHER	6.40	108.795	6.50	143.253	6.50
<b>TOTAL REQUEST . . . . .</b>	<b>\$158,324</b>			<b>157,578</b>	<b>6.50</b>

## REQUEST YEAR OBJECTIVES AND JUSTIFICATION

## Objective 1:

To provide additional technical staff to satisfy increased workload requirements.

<u>Request:</u>	0.5 FTE Data Control Coordinator A. . .	\$ 4,720
	2.0 FTE Senior Computer Programmer. . .	40,150
	3.0 FTE Systems Analyst B . . . . .	63,252
	2.0 FTE Computer Operator B . . . . .	25,280
	Operating Expense . . . . .	9,882
	Machine Rental. . . . .	15,240
	<b>TOTAL REQUEST . . . . .</b>	<b>\$158,324</b>

## Justification:

The 0.5 FTE Data Control Coordinator is required to process the increased volume of information provided to all levels of management. With the Payroll/Personnel System, the Patient Accounting System, the Financial Reporting System, etc. The need for control and accurate, expedient distribution of information is critical.

One FTE Senior Computer Programmer is required for the Technical Support division for proper maintenance of the various data bases resulting from new systems development (e.g., Payroll/Personnel, Patient Accounting, etc.).

Four FTEs are required for the Systems Development Division. Three Systems Analyst B's and one Senior Computer Programmer are required to meet the increased workload requirements. These positions are required to provide greater systems flexibility through continued efforts in the areas of short-term improvements, Systems assurance, and system coordination with the Consolidated Administrative Data Processing Center in Boulder.

Two FTEs are required for Computer Operations. These Computer Operator B's would provide the required resources for additional shift coverage required by the new Patient Accounting System and the other increased workloads.

Expanding workload demands for the timely information require funds to cover continuous computer forms and microfiche for applications such as

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OR 200%  
ADP

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the University-wide Financial Reporting System and the Patient Accounting System.

Direct access storage devices needed to accommodate ever expanding Patient Accounting System and Financial Reporting System files which contain the information demanded in both hardcopy and on-line form.

Objective 2:

To provide funding for the maintenance of the on-going base programs.

<u>Request:</u>	Operating Expense . . . . .	\$ 33,410
	Machine Rental . . . . .	50,454
	Recharge Increase . . . . .	2,524
	Reallocation Increase . . . . .	11,801
	<u>TOTAL REQUESTED INCREASE . . . . .</u>	<u>\$ 69,539</u>

Justification:

This request represents a 10% increase to offset inflation related costs.

DIVISION OF ADP RECOMMENDATION:

Computer Operators	2.0 FTE	\$ 25,280
Computer Programmers	2.0 FTE	40,150
Operating Expense Increase		26,727
Equipment Rental (incl. new disc)		65,694
<u>TOTAL RECOMMENDED INCREASE</u>		<u>\$157,851</u>

**ADP BUDGET ANALYSIS****INSTITUTION UNIV OF COLO. MED. CTR. - MANAGEMENT IMPROVEMENT**

	1978-79 FTE/ACTUAL	\$	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	1980-81 FTE/RECOMMEND	\$	1980-81 FTE/ADV. BOARD	\$
PERSONAL SERVICES										
OPERATING EXPENSE										
OPERATING EXPENSE OTHER										
EQUIPMENT -										
EQUIPMENT RENTAL										
EQUIPMENT C/O										
EQUIPMENT SUB-TOTAL										
TOTAL										
GENERAL FUND										
CASH										
FEDERAL										
SALARY ACT										
OTHER										

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III-71

REQUEST YEAR OBJECTIVES AND JUSTIFICATION  
The only 1980-81 request for State funding for Management Systems Improvement is for the Clinical Data Processing System.

Objective 1:

To begin the installation of Phase II for the total Hospital Information System, Clinical Data Processing. The installation will be implemented over a 24-month period.

Request:	8.5 FTE Classified Staff . . . . .	\$ 146,295
	Operating Expenses: . . . . .	
	Supplies . . . . .	20,785
	Software . . . . .	90,101
	System Installation: . . . . .	275,000
	Hardware 1. . . . .	1,455,440
	Terminal Installation 2. . . . .	275,000
	TOTAL REQUEST . . . . .	\$2,262,621

1. Purchase of 125 Video Matrix Terminals.
2. Includes costs associated with purchase of cables, cable installation, and core drilling for 125 terminals.

Justification:

The Clinical Data Processing System (CDP) represents the second module of the planned Hospital Information System. The first module, the Patient Accounting System has been installed and is in full operation as of October 1, 1978.

The 1980-81 request represents the costs for the first year of a two year developmental installation period for the system. The total developmental and installation costs will be approximately \$4.2 million. A major portion of the request during the developmental/installation period is for one-time only costs associated with the purchase and installation of the hardware.

DIVISION OF ADP RECOMMENDATION:

The Division is not submitting a recommendation for the Clinical Data Processing System due in part to the specialized nature of the application in patient care documentation.

Secondly, it is impossible for the Division of ADP in the short time of the budget process, to verify the stated cost benefits.

The medical center has not attempted to prepare the Division for this request during the last 12 months since the initial request was submitted in FY 1979-80.

ADP BUDGET ANALYSIS		INSTITUTION		UNIV OF CCLQ. MED. CTR.		NUMBER		SCHEDULE 2	
1978-79		1979-80		1980-81		1980-81		1980-81	
FTE/ACTUAL \$		FTE/ESTIMATE \$		FTE/REQUEST \$		FTE/RECOMMEND \$		FTE/ADV. BOARD \$	
PERSONAL SERVICES	42.90	757,028	43.00	875,448	59.00	1,155,145	47.00	941,728	
OPERATING EXPENSE		327,981		334,097		488,275		360,824	
OPERATING EXPENSE OTHER						550,000			
EQUIPMENT -									
EQUIPMENT RENTAL									
EQUIPMENT C/Q									
EQUIPMENT SUB-TOTAL		458,612		504,542		2,025,676		570,236	
<b>TOTAL</b>	<b>42.90</b>	<b>1,543,621</b>	<b>43.00</b>	<b>1,714,087</b>	<b>59.00</b>	<b>4,219,096</b>	<b>47.00</b>	<b>1,872,788</b>	
GENERAL FUND	36.50	1,384,011	36.50	1,478,585	52.50	4,061,518	40.50	1,715,210	
CASH									
FEDERAL									
SALARY ACT									
OTHER	6.40	108,795	6.50	143,253	6.50	157,578	6.50	157,578	

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## ADP BUDGET ANALYSIS

## INSTITUTION UNIV OF NORTHERN COLORADO

	1978-79 FTE/ACTUAL \$	1979-80 FTE/ESTIMATE \$	1980-81 FTE/REQUEST \$	1980-81 FTE/RECOMMEND \$	1980-81 FTE/ADV. BOARD \$
PERSONAL SERVICES	22.00	372.650	22.00	415.297	22.00
OPERATING EXPENSE		41.291		48.104	
OPERATING EXPENSE OTHER		1,716		5,460	
<b>EQUIPMENT -</b>					
EQUIPMENT RENTAL		140.966		120.018	
EQUIPMENT C/O		41.053		74.112	
<b>EQUIPMENT SUB-TOTAL</b>		182.019		194.130	
<b>TOTAL</b>	<b>22.00</b>	<b>597.716</b>	<b>22.00</b>	<b>662.991</b>	<b>22.00</b>
GENERAL FUND	22.00	551.573	22.00	576.045	22.00
CASH		24.108		22.000	
FEDERAL		1.460		1.460	
SALARY ACT		25.939		37.761	
OTHER		-5.364		25.725	

## REQUEST YEAR OBJECTIVES AND JUSTIFICATION

A. Objective: Maintain computer support for the current programs, both instructional and administrative, at the University of Northern Colorado.

Request: No increase (Format 454)

Justification: Computer programs support management data for the institution, which is required in the day-to-day operations. The instructional program is strengthened through data analysis and the extension of classroom learning experiences into computer science. There is no increase in this budget, but funding should be continued at approximately the same level.

B. Objective:

Justification: Continue to provide service to students through the use of the computer registration system, which became a reality during the 1979-80 Estimate Year. The system provides for continuous registration with printed schedules and the capability of immediately updating and displaying all classes available.

Request: \$86,967 (line 20, Format 480) Increase of \$20,356 over current years expenditures is required to pay for existing installed equipment.

Justification: In addition to providing better service to students and the capability of handling registrations more efficiently, the system will provide management information on a current basis. The mini-computer and software are under a five-year lease agreement. The second year of the lease will be the 1980-81 Request Year.

C. Objective: Replace two Decwriter II student terminals, and data entry equipment in the administrative keypunch section.

Request: \$3,001 (line 22, Format 480) Increase.

\$4,500 (line 24, Format 480) Increase.

Justification: Devices are heavily used and worn out. Replacement is recommended every four years.

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## ADP BUDGET ANALYSIS

## INSTITUTION UNIV OF SOUTHERN COLORADO

	1978-79 FTE/ACTUAL	1979-80 FTE/ESTIMATE	\$	1980-81 FTE/REQUEST	\$	FTE/RECOMMEND	\$	1980-81 FTE/ADV. BOARD	\$
PERSONAL SERVICES	14.40	249.437	14.40	281.030	17.00	321.901	15.40	296.000	15.40
OPERATING EXPENSE		18.487		6.468		24.745		21.500	
OPERATING EXPENSE OTHER		5.138		13.287		27.287		13.287	
<b>EQUIPMENT</b>									
EQUIPMENT RENTAL C/O		52.595		52.875		222.646		65.530	
EQUIPMENT		2,800		1,337		1,671		1,671	
<b>EQUIPMENT SUB-TOTAL</b>		55.395		54.212		224.317			
<b>TOTAL</b>	14.40	328.457	14.40	356.997	17.00	596.250	15.40	67.201	67.201
GENERAL FUND									
CASH									
FEDERAL									
SALARY ACT									
OTHER									
<u>REQUEST YEAR OBJECTIVES</u>									

Objective:

1. To be able to fulfill the goals and mission established by the new polytechnical status of the Institution by providing state-of-the-art hardware and software.

Request:

- Upgrade computer hardware \$168,000
- Additional student keypunches 4,716
- Terminals and ports 5,856
- Upgrade computer software 14,000

$\$192,572$

Justification:

In order to provide effective and efficient services to support the polytechnic thrust given the institution, an upgraded computer system is a must. The current system cannot support the instructional and administrative needs due to faulty and obsolete equipment, lack of storage, and degeneration of the system itself as new applications and teleprocessing requirements are added. Ninety percent of the current (hand-me-down) hardware is 10-15 years old and requires constant major maintenance.

Therefore, new equipment is required for the polytechnical needs and the newly proposed computer science program. The quality of these educational programs demand this support. Additional keypunches and terminals are also needed to fulfill these demands.

Upgraded software will allow the new system to run efficiently with a tape handling system. This would greatly enhance security mechanisms.

Objective:

2. To improve and optimize computing services to both administrative and instructional users by providing increased service with additional staff.

Request:

- 1.0 FTE Computer Programmer \$ 18,576
- 1.0 FTE Computer Operator 11,831
- Increase in shift differential 1,364
- Professional staff salary increase @ 10%  $\frac{3,326}{\$ 35,097}$

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Justification:

Lack of adequate staff to meet the flux of requests for the maintenance and development of systems has been detrimental to the institution. One additional programmer would lighten the load that has befallen the remaining staff.

In a multi-programming environment, one operator cannot effectively maintain a shift by oneself. Therefore, an additional operator is required to alleviate operational errors, especially during a production shift.

Objective:

3. To be able to support the increased numbers of students using the computer center facilities, student lab assistants can optimize their own learning abilities.

Relieving staff members in keypunching and other support services broadens on the job training for qualified students.Request:

~~-.6 FTE~~ increase in hourly wages \$ 5,774

Justification:

As technology in computers invades all endeavors of today's vocations and professions, additional computer services is evident to support these growing needs. Advanced technology has entered not only the computer science and mathematical fields, but those in Business and Engineering as well. Therefore, in order to provide the increasing number of students that require the use of computer for programming and statistical aids with these services, additional lab assistants are needed. At the same time these students are gaining valuable experience with on the job training.

Objective:

4. To provide an adequate level of support of the polytechnical role of the university through more capable staff of the computer center and support resources which will enhance the productivity of all involved.

Request:

~~-\$~~ 2,300

Justification:

Travel allows staff members to attend seminars and workshops to enhance their learning capabilities and techniques. These rewards are then passed on to the institution itself, basically incentives to see other types of systems and applications.

Request:

~~-\$~~ Increase other current expenses to meet inflationary price increases

Justification:

Maintenance on equipment has been increasing about 10% a year. Paper and supplies at a higher rate. The upgraded hardware would reduce the maintenance costs on current equipment by approximately \$12,000, thus the real increase in OCE has been reduced considerably.

DIVISION OF ADP RECOMMENDATION:

- a. The Division of ADP does not recommend the upgrade computer as requested. (\$168,000). Terminals and ports (\$5,856) and upgrade computer software (\$14,000) are encompassed with the new computer requested and are likewise not recommended.
- b. All elements of the request, except the additional 1.0 FTE computer programmers are recommended.
- c. Increase in FTE hourly wages is not recommended.
- d. Total travel is recommended at \$1,000.
- e. Inflationary costs are recommended.

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4CP BUDGET ANALYSIS

INSTITUTION WESTERN STATE COLLEGE

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